Victoria Falls, Zambesi

TRAVEL STORIES

RETOLD FROM ST. NICHOLAS

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TRAVEL STORIES

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THE GRAND CANON OF ARIZONA

BY WILLIAM HASKELL SIMPSON

MANY of those who seek and love earth's greatest scenery have declared that they found it at the Grand Cañon of Arizona. Travelers flock to it from the ends of the earth, though the majority of the visitors, numbering every year about a hundred thousand, are Americans.

The Grand Cañon of the Colorado River, in northern Arizona, is indeed a world wonder, and there is no other chasm in the world worthy to be compared with it. It is more than two hundred miles long, including Marble Cañon, is from ten to thirteen miles wide in the granite gorge section, and is more than a mile deep. It was created ages and ages ago by the erosive action of water, wind, and frost, and it is still being deepened and widened imperceptibly year by year.

The Colorado River, which drains a region of

three hundred thousand square miles and is two thousand miles long from the rise of its principal source, is formed in southern Utah by the junction of the Grand and the Green Rivers, and, flowing through Utah and Arizona to tide-water at the Gulf of California, it dashes in headlong torrent through this titanic gorge—this dream of color, tinted like a rainbow or a sunset.

The cañon is reached by a railroad running to the rim, and may be visited any day in the year. It is unlike most other scenery, because when standing on its rim you look down instead of up. Imagine a gigantic trough, filled with bare mountains on each side and sloping to a narrow channel, which in turn is carved deeply and steeply out of solid granite. You come upon it unawares from the level, timbered, plateau country. The experience is an absolutely unique one. Only when you go down one of the trails to the bottom and look up is the view more nearly like other grand mountain vistas. The first glimpse always is from the upper edge, and, having no previous standard of measurement, you find it difficult to adjust yourself to this strange condition. The distant rim swims in a bluish haze. The nearer red rocks forming the inner

cañon buttes—crowned with massive table-lands that look like temples, minarets, and battlements—reflect the sunlight in myriad hues. It seems a vast illusion rather than reality. No wonder that the first look often awes the spectator into silence and tears!

But, before you have been here long, you will wish to know how it all happened. You will ask how the cañon was made.

That question was asked by a little girl of Captain John Hance, one of the pioneer guides. Hance contests with a few other early comers the distinction of being the biggest "romancer" in Arizona. He told her that he dug it all himself.

"Why, Captain Hance!" she said, in astonishment, "what did you do with all the dirt?"

He quickly replied, "I built the San Francisco Peaks off there with it!"

Just between ourselves, no one absolutely can tell just how the miracle occurred, for no human being was there at the time. But the geologist has put together, bit by bit, thousands of facts, dug from the rocks which here lie exposed like a mammoth layer-cake and his explanation is so convincing that it must stand as at least the probable truth.

Here may be seen rocks of the four geological periods which are among the very oldest of our earth. The rocks of later periods were here once, too, making a layer more than two miles high resting on what is to-day the top, but in some remote age they were shaved off by some great natural force, perhaps a glacier.

The eating away of the rocks which formed the cañon itself is modern. Scientists say it was done, as it were, last Monday or Tuesday, for it was when the top two thirds had been "shaved off," as we have said, that the Colorado River began to cut the Grand Cañon through the rocks that formed the lower third.

While the cracking of the crust, caused by internal fires, may have helped the process of cañon-making, the result of erosion is seen everywhere. Every passing shower, every desert wind, every snowfall, changes the contour of the region imperceptibly but surely. The cañon is Nature's open book in which we may read how the earth was built.

With the coming of the railroad, when this century was yet a baby, tourists began to flock in, hotels were built, highways constructed, trails

bettered, and other improvements made. To-day the traveler finds here every comfort.

Although first glimpsed by white men in 1540, when the Spanish conquistadors appeared,—one expedition journeying from the Hopi pueblos in Tusayan across the Painted Desert,—the big cañon remained unvisited, except for Indians and trappers, until 1858, when Lieutenant Ives, of the army engineer corps, made a brief exploration of the lower reaches of the Colorado, coming out at Cataract Creek. It was not thoroughly explored until the year 1869, when Major John W. Powell made his memorable voyage from the entrance to the mouth of the great gorge, passing down the Green and Colorado Rivers. Though he lost two boats and four men, he pushed on to the end. It is fitting that the United States Government has erected to his memory a massive monument of native rock with bronze tablets on one of the points near El Tovar Hotel.

Powell's outfit consisted of nine men and four rowboats. The distance traveled exceeded one thousand miles, from what is now Greenriver, Utah, through the series of cañons to the mouth of the Rio Virgin. In the spring of 1871 he

again started with three boats and descended the river to the Crossing of the Fathers. The following summer Lee's Ferry was his point of departure and he went as far as the mouth of Kanab Wash.

Beginning with the Russell and Monett party, in 1907, several others have essayed to duplicate Powell's achievement, and successfully, too, though without adding to our scientific knowledge of the cañon. The trips are exceedingly dangerous, for the rapids conceal rocks that would wreck any boat, and the currents are treacherous. It is safer, by far, to sit at home and read Powell's story.

The average traveler spends too short a time at the cañon. He arrives in the morning and leaves in the evening. Those wise ones, who go about things in more leisurely fashion, stay from three days to a week.

There are certain things that everybody does. Simply by looking through the big telescope at the "lookout," an intimate view may be had of the far-off north rim and of the river gorge five miles below in an air line. It is easier than actually going to those places, though both are accessible. The north rim, or Kaibab Plateau, is about a

quarter of a mile higher than the south rim, where you are standing, and is thickly forested with giant pines. Clear streams are found here, and wild game in abundance. Mountain-lions hide in the rocks, and bobcats haunt the trees. It is the home of the bear, too; you may see two "sassy" young sample specimens outside the house where the Indians stay, opposite El Tovar Hotel. The way across the cañon to the north side is not an easy one, as the Colorado must be crossed in a steel cage suspended from a cable, which stretches dizzily from bank to bank. Then follows the stiff climb up Bright Angel Creek, along a trail seldom used.

The Hopi House, where the Indians give their dances every evening for free entertainment of guests, is another attraction. It is occupied by representatives of the Snake Dance Hopis, whose home is many miles northeast across the Painted Desert. You won't see the Snake Dance, of course, but you will witness ceremonies just as interesting, participated in by men, women and children of the Hopi and Navajo tribes. The little tots, especially, are very "cute." They execute difficult steps in perfect time and with the utmost solemnity, while the drummer beats the

tom-tom, and the singer chants his weird songs.

Here you may see Navajo silversmiths at work, fashioning curious ornaments from Mexican coins and turquoise, also deft weavers of blankets and baskets.

The Havasupai Reservation, in Cataract Cañon, is about sixty miles away, and Indians from that hidden place of the blue waterfalls are frequent visitors around the railway station.

All of these Indians understand the language of Uncle Sam. Many of them are Carlisle or Riverside graduates, and one young Hopi is writing a history of his tribe in university English.

Have you ever ridden a mule? If not, you will learn how at the cañon, for only on muleback can travelers easily make the trip down and up the trail. Walking is all right going down, but the climb coming back will tire out the strongest hiker: hence the mule, or burro, long as to ears, long as to memory, and "sad as to his songs."

Of the visitors, fat and lean, tall and short, old and young, to each is assigned a mule of the right size and disposition, together with a khaki riding-suit, which fits more or less, all surmounted by hats that are useful rather than ornamental. It is a motley crowd that starts off in the morning,

in charge of careful guides, from the roof of the world—a motley crowd, but gay and suspiciously cheerful. It is likewise a motley crowd that slowly climbs up out of the earth toward evening —but subdued and inclined still to cling to the patient mule.

"What did you see?" asked curious friends.

Quite likely they saw more mule than cañon, being concerned with the immediate views along the trail rather than the thrilling vistas unfolding at each turn. Nine out of ten of them could tell you their mule's name, yet would hesitate to say much about Zoroaster or Angel's Gate. They could identify the steep descent of the Devil's Corkscrew, for they were a part of it; the mystery of the deep gulf, stretching overhead and all around, probably did not reach them. That is the penalty one pays for being too much occupied with things close at hand.

Yet only by crawling down into the awe-full depths can the cañon be fully comprehended afterward from the upper rim.

All trail parties take lunch on the river's bank. The Colorado is about two hundred feet wide here, and lashed into foam by the rapids. Its roar is like that of a thousand express-trains.

The place seems uncanny. At night, under the stars, you appear to be in another world.

No water is to be found on the south rim for one hundred miles east and west of El Tovar, except what falls in the passing summer showers, and that is quickly soaked up by the dry soil. All the water used for the small army of horses and mules maintained by the transportation department, likewise for the big hotel and annex and other facilities, is hauled by rail in tank-cars from a point one hundred and twenty-five miles distant. The vast volume of water in the Colorado River, only seven miles away, is not available. No way has yet been found to pump economically the precious fluid from a river that to-day is thirty feet deep, and to-morrow is seventy feet deep, flowing below you at the depth of over a mile.

Another curious fact is this: the drainage on the south side is away from the cañon, not into it. The ground at the edge of the abyss is higher than it is a few miles back.

During the winter of 1917 there was an unusual fall of snow, which covered the sides and bottom of the cañon down to the river. Nothing like it had been seen for a quarter of a century.

Generally, what little snow falls is confined to the rim and the upper slopes. At times the immense gulf was completely filled with clouds, and then the cañon looked like an inland lake. As a rule, this part of Arizona is a land of sunshine; the high altitude means cool summers; the southerly latitude means pleasant winters.

Naturally, a place like the Grand Cañon has attracted many great artists and other distinguished visitors. Moving-picture companies have staged thrilling photo-plays in these picturesque surroundings. Photographers by the score have trained their finest batteries of lenses on rim, trail, and river, some of them getting remarkable results in natural colors.

Unmoved by this galaxy of talent, however, the Grand Cañon refuses wholly to give up its secrets. Always there will be something new for the seeker and interpreter of to-morrow.

The Grand Cañon is a forest reserve and a national monument. A bill has been introduced in Congress to make it a national park. Meanwhile, the United States Forest Service and the railway company are doing all they can to increase the facilities for visitors. A forest ranger is located near by. His force looks out for fires,

and polices the Tusayan Forest district. Covering such a large area with only a few men, a system has been worked out for locating fires quickly. Fifteen minutes saved, often means victory snatched from defeat. Water is not available, for this is a waterless region except during the short rainy season, so recourse must be had to other devices, such as back-firing and smothering with dirt.

Official government names for prominent objects in the region have been substituted for most of the old-time local names. For example, your attention is invited to Yavapai Point, so called after a tribe of Indians, instead of O'Neill's Point. These American Indian words are musical and belong to the country, and the names of Spanish explorers and Aztec rulers also seem suited to the place. Thus the great cañon has been saved the fate of bearing the hackneyed or prosaic names that have been given to many places of wonderful natural beauty throughout our country. Think of a "Lover's Leap" down an abyss of several thousand feet! That atrocity, happily, has been spared us in this favored region.

This great furrow on the brow of Arizona

never can be made common by the hand of man. It is too big for ordinary desecration. Always it will be the ideal Place of Silence. Let us continue to hope that the incline railway will not be established here, suitable though it may be elsewhere, nor the merry-go-round. The useful automobile is barred on the highway along the edge of the chasm, though it is permitted in other sections.

It has been my good fortune to meet at the cañon many noted artists, writers, lecturers, "movie" celebrities, singers, and preachers. The impression made upon each one of them by this titanic chasm is almost always the same. At first, outward indifference—on guard not to be overwhelmed, for they have seen much, the wide world over. Then a restrained enthusiasm, but with emotions well in check. After longer acquaintance, more enthusiasm and less restraint. At the end, full surrender to the magic spell.

IN RAINBOW-LAND

BY AMY SUTHERLAND

UNTIL only a few years ago, the Greatest Wonder of the World lay hidden away in one of the most savage parts of Africa. The natives of that region, terrified by its mysterious columns of vapor and its subterranean thunder, did not venture within many miles of it. The white men who had looked upon it could be counted on the fingers of one hand.

And yet, more than fifty years have passed since the explorer Livingstone, journeying eastward along the Zambesi, first beheld that rainbow mist rise above the forest. Of its cause he could learn nothing from the savages; and so, except for his own conjectures, he came quite unprepared upon his splendid discovery. He approached it by the river, which above the Falls is a mile wide, and below them runs for fifty miles at the bottom of a gorge between four and five hundred feet deep, whose twin walls of black, precipitous rock show for all that distance scarcely

a ledge or slope where the smallest plant may cling. So, after a peep downward at the Falls, from the island on their brink which now bears his name, he left his new-found marvel less than half seen, and departed whence he came.

And the loneliness of those vast solitudes brooded once more over forest and river, to be broken only at rare intervals by some wandering hunter, or perhaps by a party of men adventuring through endless toil and danger to behold a wonder whose fame, even then, spread as far as that tiny portion of South Africa where white men dwelt and civilization held sway. So things remained until the day of Cecil Rhodes, under whose auspices went forth the *voortrekkers,* or pioneers, to colonize the vast land now called Rhodesia, in the heart of which the Victoria Falls lie. Many of these voortrekkers, and their wives and children, died at the hands of the savage Amatabele tribe of natives; but the survivors in the end were victorious, and the country became their own.

Cecil Rhodes died, and was laid in his lonely grave among the Matopo Hills, on a rocky summit which looks far out over the land he loved. But his wishes were remembered, the greatest

and the least of them; and still, year by year, the Central African Railway grows, every year a little, northward through the forests. And now it has reached the Zambesi, and over that hitherto unconquerable gorge has been thrown one of the most wonderful railway bridges ever built; and close by has sprung up a great hotel, so that the Victoria Falls and their surroundings are attainable at last by all the world.

For many days the approaching traveler has been flying through a mighty tropical forest, in which a path has been cut for the railway line, but which is otherwise so undisturbed, so vast and silent and lonely, that it is hard to believe white men can ever make a home in it. Here the lion prowls at his own sweet will, and legions of antelopes, great and small, graze on the sweet veldt. And here elephants wander in troops of fifty or more, and in the swamps the hippopotamus plows his way through the papyrus reed and the ten-foot Rhodesian grass. The little iron shanties of the railway men are the only signs of civilized life. The natives of the country are few and far between; their kraals, with the conical huts peculiar to this race of Africans, look down from the rare, slight eminences.

There is no change in the scenery, little to give warning of the wonder that one approaches. Only, above the noise of the train, a far-off murmur of sound grows upon the ear; and a little while later, floating upward from out the forest, there comes in sight a long line of snowy vapor, which, as the low sun touches it, glows with soft, many-colored lights. This mist-cloud is caused by the sudden narrowing of the great Zambesi River in the Chasm, not two hundred yards wide, which receives the Falls at the end of their leap. The cloud rises at times as much as five hundred feet into the air, and there condenses into rain, which falls in eternal showers glorious in this thirsty land, and makes in the country close about the Falls one perpetual spring.

This tract of land is known as the Rain Forest, and in its tropical magnificence, its soft and delicate beauty, can surely be surpassed by nothing on earth. All about the path laboriously cut through its jungles, rise the trunks of splendid trees, which seem to tower into the very sky; their stems, and the earth about them, are hidden in masses of giant ferns, whose long sprays sway and quiver continually under the weight of the falling drops. Strange plants of many kinds

grow here; orchids droop from the trees, and palms raise their graceful heads from out the tangle. Through it all drift the rainbow vapors, and from between the trees the sun strikes in long, slanting rays, and lights up the wet vegetation, the rising mist, the falling raindrops, with an effect so tenderly and unutterably lovely that it often brings tears to the eyes.

In places the forest is more open, and here the giant Rhodesian grass grows, twelve feet high, its flower-heads heavy with wet; and palms, free from the jungle and able to grow as they will, rise thirty feet into the air, their every fringed leaf hung with gems.

At any time a few steps will take the traveler from out this Forest of Rainbows, to where he may stand on the very verge of the terrific Chasm. Here he is directly opposite the Falls, which come rushing over the further tip in a mass of foam as white as snow, to fall with a roar more than four hundred feet into the dreadful abyss. By leaning over, it is possible at times to see the river at the bottom, a boiling, turbulent torrent racing furiously to the right along its rock-bound bed; but more often all is hidden in the mist, which is hurled upward so densely that in places the

Chasm seems choked with it, and it rushes past the observer with an audible sound and a suggestion of irresistible force, awe-inspiring to a degree. Opposite the Main Falls, a spot known to the natives as Shongwe, the Caldron, it is so heavy as to blot out sky, forest, and even the Falls themselves, and we are in a strange twilight, half smothered in vapors and wholly deafened with the thunderous roar of the Falls so close at hand.

Everywhere are double rainbows of surpassing brightness, sometimes arches, sometimes complete, glowing circles. They are so close, one may watch their melting colors as in a soapbubble; and they move and change continually with the sun or the movements of the spectator. They gleam softly in the cloud, brilliantly against the stern black cliffs; and tiny rainbows by hundreds dance in the falling sheets of water and among the palms and ferns of the forest.

A strange circumstance cannot fail to strike the observer, and awe him, as perhaps nothing else could, with a sense of the vast depth of the fissure into which he fearfully gazes. The spray and rain bring into being hundreds of streams, which flash over the edge of the cliff opposite the

Falls in an eternal effort to rejoin their parent river. But they never reach the bottom. Long before they are half-way down, they vanish, dissipated once more into spray, and borne upward in the form of lighted mist.

Of the radiant beauty of the whole scene, one writer, a traveler of renown, says:

"I believe that on that day I was gazing at the most perfectly beautiful spectacle of all this beautiful world.

"As the sun's rays fell on that kaleidoscopic, ever-moving, changing scene, made up of rock, water, mist, and shivering foliage, the coloring of it all was gorgeous, yet of sweetly tender tints under that luminous, pearly atmosphere formed by the spray-mist. Below, where one caught glimpses of the rushing water, it was turned brown and golden, blue and rich dark green. The cliff, sparkling with dripping water, was of shining black and glowing bronze. The foliage of the Rain Forest was of the green of an eternal spring, and a myriad jewels of twinkling light were made by the water-drops on the trembling leaves. A glorious rainbow spanned the Chasm, and other rainbows flitted in the haze. As for the tender, pale beauty of the Cataract and of the

luminous, pearly mist, no words could convey it to the imagination."

Another writer says: "The beauty of the pearl-tinted atmosphere, and the glory of the dazzling rainbows, are the first and the last impressions that the Victoria Falls give to the mind."

The eastern extremity of the cliff opposite the Falls is known as Danger Point; and here the Chasm turns abruptly at right angles, and becomes the famous Gorge which for fifty miles zigzags across country, with the Zambesi like a silver cord at the bottom of it. Just at the turning-point, a mass of rock has fallen from the cliff and lies below in the river—a mass which, it is interesting to note, Livingstone describes as just *ready to fall,* and which in his drawing of the scene is represented as almost parted from the rest. Along the Gorge a strong, cold wind blows always, and bears the mist as far as the railway bridge and the exquisite palm groves near it.

Above the Falls, the scene is scarcely less fair. Here lies the broad Zambesi, placid and calm under its sunny skies, with its fifty islands, palm-crowned, wonderful, kept ever green and spring-like by the soft spray-showers. On the banks

grows the burly baobab, whose trunk is as large as a house; lovely forest fringes either shore, and gay-plumaged birds flit among the flowering trees and feast on the plentiful wild fruits. From here the mists of Victoria take the form of five towering pillars, bending with the wind, white below, but dark farther up, where they condense into rain. Livingstone says of the river at this point: "No one can imagine the beauty of the view from anything witnessed elsewhere. It had never been seen before by European eyes; but scenes so lovely must have been gazed upon by angels in their flight."

The monstrous footprints of the hippopotami are thick along the banks, and crocodiles lie sunning themselves in the open spaces. Tiny gray monkeys, with wise black faces, swing from the miles of creeper which festoon the trees. Green parrots shriek, and strange great reptiles crash a path through the tangle. The savage natives punt or paddle their dugouts on the placid bosom of the river. So recent is the white man's advent that the whole is scarcely changed from the day when David Livingstone first looked upon it and realized, with beating heart, the Wonder he had found.

TRAVELING IN INDIA

BY MABEL ALBERTA SPICER

HERE in the Western world, where everything is hustle and bustle, where express-trains, automobiles, telephones, telegraphs, pneumatic tubes, and, most recently, aëroplanes save us hours of time, it is difficult to realize that on the other side of the world things are moving along at the same slow pace at which they did centuries ago. Also, here in America, where everybody is saying, "I have no time, I have no time, I have no time!" it seems strange to think that there are countries where time has no value whatsoever, where people believe they have to live thousands and thousands of lives before they reach their heaven, and, consequently, have no regard for time.

Imagine spending the whole night in the train to go one or two hundred miles! Imagine, also, everybody's surprise if some traveler should attempt to take with him into an American sleep-

ing-car a roll of bedding, a box of ice, sawdust, and bottles of soda-water, a huge lunch-basket, spirit-lamps, umbrella-cases, hat-boxes, suitcases and bags without number, a talkative parrot, and a folding chair or two! He would be thought quite mad, of course, and would not be allowed to enter the car. Yet this is how people travel in the trains of India. Sometimes, to be sure, the chairs and noisy parrot are left at home, but quite as often golf-sticks and a folding cot are substituted. Native travelers often carry their cooking-utensils and stoves with them. No one is in a hurry, and the train often waits quite long enough at stations for them to install their stoves on the platform, and cook a good dish of rice.

Most trains have first-, second-, and third-class carriages. Europeans and Americans usually travel first-class, for the best in India is bad enough when compared with the luxuries of travel in Western countries. Most of the carriages are about half as long as those in America, and divided into two compartments without a corridor, each having a lavatory at one end. Running along each side of the compartment, just under the windows, is a long, leather-covered bench, which serves as a seat during the day, and

a berth at night. It is equally uncomfortable in both capacities. Above this, folded up against the side of the car, is a leather-covered shelf that lets down to form the upper berth.

My first experience in Indian trains was at night. My turbaned servant arranged my bedding on a bench in a compartment reserved for ladies, switched on an electric fan, salaamed, and went off to find his place in a servants' compartment adjoining. Most trains have special compartments for servants. It is impossible to travel comfortably in India without native servants.

While I was in the dressing-room, preparing for the night, I heard a noise outside, and, looking out, saw an old man with a lantern, down on his knees looking under the berths. He said that he was looking for me, that he was afraid I had missed the train.

Finally, after a great ringing of bells, tooting of whistles, waving of lanterns, and chattering of natives, we pulled out into the darkness and heat. The electric fan burred, mosquitos hummed and bit, the train rocked wildly from side to side.

I was just dozing off, when lights were flashed in my eyes. More bells, whistles, and chatter-

ing natives! The door burst open, and an Englishman ordered his man to put his luggage in the compartment. I called out that it was reserved for ladies, and he disappeared with a "Sorry!"

Out into the darkness again, only to be aroused at the next station by the guard, who shouted, "Tickets, please!" The night was one prolonged nightmare of heat, noise, jolting, and mosquitos. By five, I was beginning to sleep, when I was startled by a cry of *"Chota Hazree!"* I sat up in alarm, wondering what those dreadful-sounding words could mean, when the shutters by my head were suddenly lowered, and a tray of toast and tea thrust in at me. I accepted it, and gave up all idea of sleep. The dreadful-sounding words, I found, meant "little breakfast."

Sometimes we had our meals from a tiffin basket which we carried with us, sometimes from a restaurant car, or again at the station café while the train waited, and sometimes, when all of these failed us, not at all. During the winter, traveling was more comfortable. It was so cold that we needed heavy rugs over us. Some of the express-trains go from twenty to thirty miles an hour.

Each time that the train stops, there is great

confusion. The natives arrive at the station hours ahead of time. Here they squat patiently until the train arrives, when they quite lose their heads. In an attempt to find places in the crowded carriages, they run excitedly up and down the platform, clinging to one another, clutching at their clumsy luggage, and screaming at their servants and the trainmen. Equally agitated groups pour out of the cars and scurry off to find bullock carts or *ekkas* to drive them to the town, which is usually some distance from the station. Boys and women with sweets, fruit, drinking-water, toys, cheap jewelry, and various articles of native production cry their wares at the car windows. Others sell newspapers, which are apt to be weeks old, if the purchaser does not insist upon seeing the date. The platform presents a riot of strange costumes, bright colors, quick-moving figures with jingling bangles and ankles, unholy odors, and clamorous sounds.

At the stations, we were met in different parts of India by the greatest imaginable variety of conveyances—carriages with footmen and drivers in state livery, sent by the native princes, hotel and public carriages after models never dreamed of in America, bullock carts, elephants, camels,

rickshaws, and, in Calcutta and Bombay, taxi-automobiles.

When your driver starts off down the street at a reckless gait, clanging a bell in the floor of the carriage with his foot, and a boy on a step at the back calls out *"Talvay!"* as you bowl along, you wonder if you have not taken, by mistake, a police wagon or an ambulance. But it is all right; you hear the same shouting and clanging of bells from all the other carriages along the route. This noise is necessary to make the idlers who stroll along the streets hand in hand get out of the way of the carriages.

There are so many horses in India that one wonders why any one should ever walk, and, in fact, very few do. They are of all grades, differing as much as does the shabbiest beggar from the most gorgeous raja. The conveyances to which they are harnessed range from the rickety public ekkas to the royal gold and silver coaches used on state occasions. One sees these wretched-looking public carriages that can be hired for a few cents filled with lazy natives and pulled along by a poor little pony that looks as if it were half-starved. Contrasting with these poor overworked creatures are the thoroughbreds which

literally die in the stables of the princes for lack of exercise.

When we were visiting in the native states, the chiefs sometimes offered us saddle-horses. The first time I rode one of these, I started off gaily, nothing fearing. From a gentle canter my mount suddenly broke into a dead run. Supposing that horses in all countries understood the same language, I said "Whoa," first mildly, persuasively, then loudly, imploringly; but without the slightest effect. On he sped faster and faster, until he overtook another horse, apparently a friend of his, for he slowed down to a walk beside it. I learned afterward that a sound similar to that used in America to make a horse go is used in India to make him stop. So the poor dear did not understand in the least my frantic cries of "Whoa!"

The only other swift-moving animal that it was my misfortune to encounter in India was a camel. This was in the north, in the desert of Rajputana. We were going to visit some tombs about five miles from the city. The others went in carriages, but I preferred to try the "fleet-footed camel." The creature knelt docilely enough to let me climb into the saddle back of the driver;

then he unfolded his many-jointed legs and rose, throwing me forward and backward in a most uncomfortable manner.

He walked haughtily about the grounds of the guest-house a few minutes, turning up his nose at everybody, then suddenly let his hind legs collapse, almost throwing me off. The driver succeeded in making him understand that there was no use making a fuss, that he would have to take us. Off across the desert he started, at a gait so rough that I know of nothing with which to compare it. At first, I tried to hold to the saddle, but it was too slippery, so there was nothing to do but to throw my arms about the driver, and hang on to him with all my might. I returned in a carriage!

At Mysore and several other places, we saw camel-carriages. They make a queer sight, these ungainly, loose-jointed animals shambling along in the harness. In Bikanir, we watched the camel corps drill. The natives in this part of India are very finely built men, and they look most imposing in their gaily colored uniforms and turbans as they sit erect on the arrogant camels who snub even their masters.

There are so many slow, lazy ways of traveling

Camel carriages of the Lieutenant-Governor of the Punjab

in India that it is difficult to say which is the slowest.

Perhaps the bullocks, when they walk, are the slowest of all. They do, however, sometimes trot, and that at a rather brisk pace. They are beautiful animals, and very different from those in America. Their skin is wonderfully soft and silky. Between their shoulders is a large gristly hump. From their chin down between their fore legs hangs a loose, flabby fold of skin.

Of these, the most beautiful are the huge white bulls sacred to the Hindu god Shiva. These lead a life of leisure and luxury. They roam about the streets unmolested, eating from the fruit- and vegetable-stalls at will. Some are housed in the temples of the god.

Those who are not so lucky as to be held sacred have a rather hard time of it. They do most of the heavy hauling, and often suffer very cruel treatment from their drivers. In fact, no other animal is so much the victim of the cruelty and ingorance of the natives as these poor bullocks.

We drove in all sorts of curious-looking conveyances behind these somewhat refractory creatures. Once we drove out into a desolate region to visit some deserted temples, seated on the floor

of a bullock cart with an arched cover of plaited bamboo over us. The men along the road walked faster than our bullocks, which went so slowly that, had it not been for the jolting of the cart, we should scarcely have known that we were moving.

In the southernmost part of the peninsula, along the Malabar coast, where there are no trains, we traveled in cabin-boats rowed by natives. It took them all night to row from Quilan to Travandrum, about fifty miles along the backwater. They sang from the moment they began to row, timing the stroke of the oar to the rhythm of their song. In the morning, they appeared as smiling and fresh as they had the evening before when we started.

In Madras, we rode in rickshaws like those of China and Japan. In many parts of India, men take the place of animals, both in carrying people and in transporting cargo. Several times we were carried up mountains in *dholies* by coolies. These dholies consist of a seat swung between two poles by ropes. They are carried by two or four men, who trot off up the hill with the poles resting on their shoulders, while the passenger dangles between them. They used to come down the mountains so fast that we were quite terrified.

The seat would twist and sway, hit against trees, graze along the side of rocks, while our porters would dance along, talking and laughing, without paying the slightest attention to us. Then there are various kinds of push-carts used in different parts of the country.

Of course, the really Indian way of traveling is on elephants. Very few, however, except princes and foreign travelers, ever ride on these lordly animals. In the "zoos" in Calcutta and Bombay there are elephants for the children to ride. The riders climb steps to a platform the height of the elephant's back, then jump into the howdah, where they are tied fast to make sure of their not falling. The old *huthi,* as the elephant is called there, sways off, waving his trunk, flopping his ears, and blinking his eyes. He makes a tour of the gardens, then returns to the platform to get other children.

At Jaipur, Gwalior, and a number of other towns where there is a fort on a hill, elephants can be hired for the ascension. The huge creatures knelt down while we clambered into the howdah with the aid of ladders. When they rose, it seemed like an earthquake to us on their backs. They climbed the hill so slowly that the

others of the party who walked arrived ahead of us. Our huthi would smell about carefully with his trunk before taking each step, then he would put a huge foot forward cautiously, and throw his great weight upon it slowly, as if afraid that the earth would give way under him. It took him so long to accommodate his four feet to each step, that I was thankful he had not as many as a centiped.

To appreciate an elephant in all his glory, one should see him in the splendor of princely procession. Designs in bright colors are painted on his forehead and trunk, trappings of silver ornament his tusks, head, and ankles, a rich cloth of gold and silver embroidery hangs over his colossal sides, and on his back is perched a rare howdah, often of gold and silver, with silk hangings. Aloft in the howdah rides the prince, resplendent with gold, silk, and jewels. In front, on the elephant's neck, sits the mahout, urging him on with strange-sounding grunts, and prods from a short pointed spear.

The elephants are reserved for state occasions. Most of the princes now have automobiles, which they look upon much as a child does its latest toy. The mass of the people depend upon the bullocks

and horses to cart them about. There are now, also, in most parts of the empire, telephones and telegraphs; but they are such ancient systems and so unreliable that they are not to be compared with ours. India is through and through a lazy country, where nobody is in a hurry.

WHERE THE SUNSETS OF ALL THE YESTERDAYS ARE FOUND

BY OLIN D. WHEELER

IN Montana, Idaho, and northern Wyoming lies the region where center the headwaters of the Missouri, Yellowstone, Green, and Snake rivers—the last named a branch of the Columbia. In the early years of the last century it was virtually the center of all human activity in the Rocky Mountain region, being a prolific, but dangerous, trapping-ground for the fur trade of those days.

Here the cloud-piercing peaks of the American Rockies reach their greatest altitude, and the scenery is of the wildest and most impressive character. The Grand Teton, 13,747 feet elevation, overlooking the magnificent Jackson Lake basin, has been climbed but twice by white men.

Since the Yellowstone Park was established, in 1872, the wonders of this region have been more or less familiar. But prior to 1870 they were

believed to exist largely in the fertile imagination of the trapper.

The Park region, as we will call it, lay between the old-time northern and southern routes of frontier-day travel across the continent. It is true there were Indian trails leading across and through it, but the Indians, superstitious by nature, seem to have avoided the localities of the geysers and hot springs, and their north and south bound trails lay to the east or west of these areas that now fascinate and interest us.

In 1807, along one of these outside trails—one that just skirted the eastern side of the geyser zone, which here lies along a well-defined north-and-south axis—came the first white man who visited the region. He saw the two beautiful lakes, Jackson and Yellowstone, the dazzling Grand Cañon and its two falls, probably some of the hot springs, and possibly some of the inferior geysers. His trail is shown—marked "Colter's Route in 1807"—on the map of the great explorers Lewis and Clark in 1814. But it was after their return to civilization that they learned of this "hot springs brimstone" locality.

John Colter was a prince of adventurers. His life as a border hero, explorer, and trapper rivals

that of any character of fiction; his discovery of the Yellowstone, while on a mission to an Indian tribe, was purely accidental, but it brought him lasting fame. He, himself, probably never realized its importance.

Two or three other old-time and adventurous mountaineers, particularly James, or "Jim," Bridger, afterward visited this locality, but people in general utterly refused seriously to consider, let alone believe, what these men told them regarding it.

Bridger was a man of remarkable ability as a guide and mountaineer, although unable to read, or even to write his own name. He was the discoverer of Great Salt Lake, and as a guide and natural-born scout had no superior, if, indeed, an equal, among frontiersmen. In this capacity he served numerous government and other expeditions and explored and traversed a large part of what was then the Far West. He could tell many a good story about his hairbreadth escapes, and lived to a ripe old age.

To attempt a word-picture of this region and its weird and unusual features is almost useless, and yet every one who visits it endeavors to do so. No words can be found adequately to de-

scribe the hot springs, that are numbered by the thousands, and the marvelous hues of their waters and their basins, rimmed and ornamented by fluted and beaded parapets of indescribable delicacy and beauty. Nor can the geysers, leaping suddenly from their deep, nether-world reservoirs, be pictured by words in such a way as to convey to the mind a real image of their strange and fascinating reality.

The first printed description of one of them was by another trapper, Warren A. Ferris, of the old American Fur Company. He visited a geyser area in 1834, but his account of it was not published until July, 1842.

Numerous waterfalls are found here, from cascades a few feet in height to cataracts having twice the leap of Niagara; lakes lie deeply embosomed among the high peaks or the heavy forests, and one of them, twenty miles in length and a mile and a half above the ocean, is now being navigated—think of it!—by motor-boats; thousands of miles of crystal trout-streams, kept supplied with trout by the government hatcheries, radiate in every direction; a natural glass cliff, an Indian quarry for arrow-heads in the ancient days, towers above a lake formed at its base by

the wise and cunning beavers. There is, too, a low mountain of pure sulphur, with beautiful boiling sulphur-pools splashing at its foot; and, in contrast to these, there is a gruesome volcano of mud belching from a dark, malodorous cavern, while almost beside this is a beautiful, clear pool of hot water formed by a stream flowing from beneath a green Gothic arch.

The wonderful cañons, exhibiting such different phases of nature's sublime handiwork, awe the beholder. One shows the marvelous way in which lava, cooling, arranges itself in massive, black, symmetric slabs and columns; these enclose a beautiful fall that adds a touch of lightness and beauty. The Grand Cañon is the most startling and extraordinary example of color harmony and nature sculpture to be found in the universe. A Japanese, in the poetic imagery of his race, has said that these brilliant cañon walls have caught and emblazoned upon their mural precipices the sunsets of all the yesterdays—a beautiful conception. One stands awed to silence in the presence of "Nature's immensities" seen here and is almost overwhelmed by the profound splendors and majestic glories of this cañon.

In another respect this park land stands in a

category by itself. By federal enactment all of the Yellowstone Park proper and some additional territory bordering it has been made a vast national game-preserve, something not originally planned.

As settlement has increased and the valleys have become occupied by farmers and ranchmen, the game has been forced into the higher valleys and parks of the mountains, or into their remote recesses. Here, within the park boundaries, deer, elk, antelope, bears, mountain-sheep, moose, bison, and the smaller game, birds (between 150 and 200 species), and fur-bearing animals, have a refuge where no hunter or trapper penetrates and danger rarely intrudes. In the Jackson Lake country, hunting is allowed for a limited period.

There are thousands of these various animals that know they are absolutely immune from harm by man when within the bounds of this park. Most of them have never seen a dog nor heard the sound of a rifle. Under these conditions their natural timidity is greatly lessened, and many of them, even bears, become suprisingly tame.

From the supply which Yellowstone Park affords, state and city parks and various game-

preserves are being stocked. Experienced men round up the yearling elk into corrals near the railway sidings, and there load them into freight-cars, with plenty of alfalfa hay, and then they are forwarded to their destination. Many carloads are shipped each winter.

The writer recently visited the park in winter to see the game animals. Heavy snows covering their pastures drive them down from their high ranges to the lower hills, cañons, and draws about Gardiner and Mammoth Hot Springs, and here the Government, during times of storm and stress, feeds them alfalfa hay and thus saves them from starvation. Elk by hundreds, or even thousands, dot the hillsides,—there are from 30,000 to 40,000 of them by actual count,—while antelope in goodly numbers range on the open and lower hill-slopes. In Gardiner Cañon beside the road the beautiful mule-deer and the white-tailed deer, touchingly innocent and trustful, and the mountain-sheep—the big-horn fellows—stand or lie, eating alfalfa, and enjoying the protecting care of a beneficent, animal-loving government. They become almost as domesticated as barn-yard animals. Indeed, at Mammoth Hot Springs, the

deer actually haunt the kitchen doors and rear themselves on their hind legs against the porch railings, or even climb the steps and peer into the doors and windows, mutely begging for food, which they often take from one's hand. At night they lie on the snow under the large trees, or, in some cases, even sleep in the large cavalry-barns, which have been vacant since the soldiers were removed from the park in the fall of 1916.

Over at the bison range and corral on Lamar River, in the northeastern corner of the park, one sees an interesting sight. Here the mountain scenery of the park reaches its finest development. In summer or winter the ride to the corral from Mammoth Hot Springs is a treat. In summer the bison herd of about three hundred—there is a so-called wild herd of about a hundred some miles farther south—ranges in a beautiful valley and on the adjoining hills and mountain-slopes near the Petrified Forest and Death Gulch. It is under the care of a keeper who lives here with his family, in a comfortable home provided by the Government. The bison are rounded up at intervals during the summer so that their condition and whereabouts shall be always known. The

herd originally consisted of only twenty-one animals, purchased by the Government in 1902 at a cost of $15,000.

In January, 1917, I made a trip by sleigh, drawn by a pair of sturdy horses, to the bison corral. On the hills at intervals along the entire route large bands of elk were to be seen. The snow was more than two feet deep, and it required two days, mostly at a walk, to travel the thirty-five miles between Gardiner and the corral. The thermometer registered from ten to fifteen degrees below zero, and for the week following the mercury ranged, in the morning, from thirty-two to fifty degrees below.

In winter the bison are kept in a large pasture-corral a square mile in extent, lying along Rose Creek and Lamar River, and here they remain very contentedly. Long before daylight each morning the herd congregates about the corral gate, waiting for feeding-time. Soon after daylight a sleigh is driven into the inclosure, loaded with alfalfa hay and drawn by a pair of horses that have become so accustomed to the buffalo as to pay no attention to them, even though the latter crowd close about them. The hay is pitchforked to the ground as the sleigh is slowly driven

along, and the animals line themselves out, following it until all are supplied. In an hour or two, after they have eaten their fill, they "mosey" over to the steaming creek that has its sources in some hot springs in the hills, drink slowly and long, and then sedately walk back along deep trails in the snow, the mother bison followed by their calves, to the feeding-ground, where most of them then lie down and sleep for a good part of the day. Mock fights or hunting jousts are indulged in by some of the younger animals and afford variety and amusement, to the participants at least. In the dim light of a winter morning the animals resemble a herd of young elephants.

Reference has been made to the fact that this particular locality is especially interesting from a geographical standpoint. Including the Jackson Lake country it is in this respect one of the most important and interesting regions on the continent. It lies on both sides of the great Continental Divide, which twists and turns in all directions in its course northward and southward.

Outside of the limits of Yellowstone Park itself, the mountain structure found here is, perhaps, not greatly different from that of other parts of the Rockies. The Teton range lies south

of the park, and is one of the most prominent and commanding in the entire Rocky Mountain chain. The park region itself seems to be a vent for the pent-up heat of the earth. It is not improbable that these boiling springs and geysers may serve as escape-valves, and be the means of preventing very serious volcanic disturbances, such as occurred here in past ages.

As a watershed the region is equally remarkable. It has been noted that here four of the largest rivers of our country have their sources, interlacing with one another. It is, indeed, a network of thousands of mountain streams forming, ultimately, four great rivers, each flowing to a different point of the compass. The headwaters of the Snake River, joining with the Columbia, find their way into the North Pacific Ocean. The waters of the Green, after a journey through the great cañons of the Southwest, flow into the Pacific through the Gulf of California. To the east flows the Yellowstone, which merges its waters with those of the Missouri, and, after a journey of three thousand miles, flows into the Atlantic through the Gulf of Mexico.

This unique region is no longer difficult of access. Railways reach it from three sides, the

north, west, and east, and the Government has spent between one million and two million dollars in establishing excellent roads to enable travelers to view the beauties of the Yellowstone. Here is to be found the finest automobile trip of its length in the country, supplemented by telephone-lines and large and costly hotels. The construction of these buildings must be carried on in winter, and the nails used have to be heated in order to handle them.

With the year 1917 will disappear the last remnant of the old stage-coaching days, a mode of travel which for years was the only method of land travel in the West, and which until now has been the method of transportation in the park. Beginning with this season, automobiles will displace the horses and coaches and numerous other changes in the way of increased comfort, convenience, and pleasure have been planned. The old six-day now becomes one of five days, with several advantageous changes in route and in the time to be spent at different points.

The policy of our Government in establishing these national parks has since been followed by other nations, and it has been praised by such thoughtful observers as, for example, Lord Bryce,

ex-ambassador to this country from England. That it has accomplished the object of its originators and is a blessing to mankind is now beyond question.

FIRECRACKERS

BY ERICK POMEROY

TEMPLE OF THE EMPRESS OF HEAVEN, CHINA

THIS is the thirteenth day of the fifth moon of the thirty-third year of Kwang-su, very early in the morning—that is, "very early" for me, because I ordered my "boy" last evening to call me at eight o'clock this morning and not a minute before. Here, in the rambling old temple where we live, we have learned to go to bed with the sun on the fourteenth and on the last day of each Chinese moon, because we know that the wailing pipes of the early morning celebrations before the gods on the first and fifteenth of the moon will be certain to wake us at a truly heathenish hour. But when an extra, unannounced, unexpected festival day is ushered in with cymbals, pipes, and firecrackers, then we just have to lose our morning sleep and try not to lose our tempers. This morning is one of those dawns of misery. Even as I write the temple bells, the

drums, and those peculiar jig-time horns are setting up a discordant hubbub in the courtyards, while at intervals a big cracker sends me springing into the air with a start that fearfully tries my nerves. At first this morning I endeavored to sleep, but I soon gave that up to don my kimono and sally forth to find out the cause of this gratuitous Fourth of July. Out on the terrace in front of the inner gates of the temple, to which the rays of the rising sun had not yet bent down, there was gathered a small group of men and boys watching such a display of firecrackers as would have attracted a whole City Hall Park full of people at home. Yet their interest was apparently much like their numbers—very small. They just gazed at the exploding end of the red string of noise without any comments and without any more evident interest than they took in seeing that the small boys picked up all of the unexploded crackers that were blown out of the danger circle by their more powerful brothers. My appearance in a kimono and straw sandals seemed to furnish them with more excitement than the rope of crackers which hung from the firecrackers pole hard by. Such a din! Can you imagine a string of firecrackers, large and small

woven together, of over one hundred thousand?

But I am getting ahead of my story. By way of introduction I meant only to tell you that I have for some time been planning to write a letter to your good editor in the hope that he might be willing to pass on to you of the fast-disappearing American "firecracker age" my story of how this country, the native land of the "whip-guns," manufactures and uses these crackers which we think of as belonging only to our Fourth of July.

The desire and determination to write this letter had their birth one day in a city of North China when I was walking along the street where many of the firecracker-makers live—since dubbed "Firecracker Row" on my private chart of the city—and when I suddenly realized how much I should have liked as a boy, when I was "shooting off crackers," to see these places and to know their ways of manufacture. It is difficult not to be interrupted nor to interrupt these lines. Now there are two little pigtailed heads stretched up just over my window-sill, peeping in and asking if I do not wish to buy the tiger-lilies they have gathered on the hillside. So first I will try to tell you how the crackers are made and then how they are used out here, in the hope that you may

find as much interest in reading the story as I have found in gathering the information and pictures for it.

Several times I went into the city to visit Firecracker Row, and on one occasion took a series of photographs to show more clearly than words will do the important steps in the process of manufacture. The first step consists in cutting the rough brown paper into pieces long enough to make a hollow tube of several layers in thickness, and wide enough to give the tube a length just twice that of the finished cracker. From the top of his pile the workman takes a pack of these slips, lays them out with one end arranged just like steps, and then slides down the stairs, as it were, with a brush of paste, so as to make the outer ends of the slips stick fast when rolled against the tube. Then he bends the other—the dry—end around an iron nail, and places the nail under a board, which rolls it along the slip until all the paper has curled around it. Once the cracker skeleton is thus formed, he gives it an extra roll or two down the bench for good measure, slides it off the nail into a basket, and has another started before you realize what he is about. Then one of the small apprentices in the

shop arranges the skeletons together in a six-sided bundle, like those on the drying board in Cut II, in each of which he puts just five hundred and seven. Why that particular number, I could not find out.

Once dry, the skeletons receive their covering garment of red paper, which makes them so truly "little redskins"—this from the hands of one of the workers without the aid of any machine whatever. He just rolls one of the narrow slips around the tube with his fingers and hurries the growing agitator into another basket to await the time for stuffing in the material that will make him such a lively fellow. Once more, however, they all have to be packed up into the six-sided bundles, this time with two stout strings tied around them a third of the way from the top and bottom, leaving the middle free. The worker takes his big knife and chops right down through the whole bundle to make the clean ends for the tops of the shorter tubes.

These shorter tubes next have a thin paper covering pasted over both tops and bottoms before the bottoms are closed by tapping them with a nail that is just a little larger than the hole in the tube, so that it crowds down some of the paper

from the sides. With the bundles right side up, the workman then makes holes in the paper cover over the top, scatters on this the powder dust, and distributes it fairly evenly among the five hundred and seven hungry ones by means of a light brush. When the dust has been tamped a little, the powder finds its way to the middle of the tube in the same manner, the fuse is inserted by another workman, the top layer of dust added, and the whole supply of bottled fun packed in by another tamping with a nail and mallet. Completed and still crowded together in the bundles, the little redskins, with the fuses sticking out of their caps, seem to wear a festive, promising look that clearly says: "You give us a light, and we 'll do the rest. And what a high old time it will be!"

When asked how many of these bundles one man could make in a day, the good-natured master of the shop said that one man is counted on to make twenty bundles up to the point where the powder is put in, when the crackers are passed along to others to finish and weave into strings. What a "string" means here in this land, where the diminutive "packs" we used to buy for a nickel would be scored, may be gathered from a glance at those which the maker is holding up in Cut I

and at those on the drying-boards in the view shown in Cut II.

Once the crakers have been fully prepared for stringing, either they are put together in such strings as you see in the pictures or they have bigger fellows—four or five times the size of the little ones—plaited in at regular intervals. Then they are wrapped neatly with red or white paper in long packages bearing on the face a red slip with the shop's name printed on it in gilt characters. Some of these packets would have seemed monstrous—needlessly extravagant—in those days when I used to make one or two nickel packs last the better part of a Fourth of July morning by firing them one by one in a hole in the tie-post or under a tin can. To give these longer strings sufficient strength to hang from a pole, as is the usual way of firing them, the workmen weave in with the fuses a light piece of hemp twine. But even this is not an adequate protection against a break in those monster strings that come out on special occasions. The one that started this letter to you was fifteen feet long when I arrived on the scene to investigate the disturbance and had already lost one-half its numbers (I have seen strings from thirty to fifty feet

long). To keep such a string from breaking, the Chinese fasten it at intervals to a rope which runs through the pulley at the top of the pole, and then draw the line up until the bottom clears the ground. As the explosions tear away the lowest crackers, the rope is let down and, at the same time, held out away from the bottom of the pole to make a graceful curve of the last few feet of the string. When such long strings have eaten themselves up, you can imagine the amount of fragments around the base of the pole. There are literally basketfuls of them to be first wetted down to guard against fire and then swept up or allowed to blow away when the winds so will.

Thus far you have heard only of little and big crackers. However, there are many distinguishing names among the Chinese for the several varieties and sizes, which I am going to give you before passing on to the story of the special uses of crackers in the Chinese life. First come the ordinary *pien p'ao,* or "whip-guns," the small ones which derive their name from the similarity which their explosion bears to the snapping of a whip. Sometimes they are called simply "whips," in the same way that the Chinese speak of many things by shortened or changed names. To make

these names seem more real to you I have had my Chinese teacher write out for me on separate slips the characters which represent them. More diminutive than the ordinary crackers are the "small whips," about an inch long, that are made especially for the small children to use without danger. For one American cent you could buy about one hundred of these. Then above the whip-guns the next class is the "bursting bamboos," which are said to have taken their name from the fact that in early times bamboo was used as the tubes for these crackers. If such were the case, a line of them must have "made the splinters fly." Even still more powerful are the "hemp thunderers," or, to take a little liberty with the translation, the "hemp sons of thunder," whose name also indicates their construction and their magnitude. Bearing a close similarity in power to our cannon crackers, these have been known at times to break the second-story paper windows in a small compound. They play an important part in the worshiping, or propitiating of the gods in our courtyard, inasmuch as it is considered good form to set them off at intervals while the whip-guns—which my teacher assures me "do not require any watching"—are keeping up their

unbroken stream of praise and prayer. They may be considered as good lusty "Amens" throughout the service.

Slightly different in form are the "double noises," which are nothing more or less than our "boosters" that go off first on the ground and again up in the air. To intersperse these throughout the explosions of the whips during any special demonstration is also considered good form. Then allied to these we find another booster, which when it explodes on the ground drives ten others up into the air to become the "flying in heaven ten sounds" with the Chinese. These are only "for play," and that chiefly in the homes from the thirteenth to the seventeenth days of the first moon of the year. With the "lamp flower exploders," that is, our flower-pot, the list of the most common forms of crackers and fireworks becomes exhausted, although the Chinese have several other less usual species, together with many alternative names for both these and the ones I have mentioned.

The time when the Chinese receive most crackers is at the New Year season, when, among the well-to-do families of Tientsin and Peking, it is customary to give a boy the equivalent of our fifty

Strings of firecrackers

Hexagonal bundles of firecrackers
drying in the sun

cents for his purchases. In Peking the shops issue special red notes, like our old "shinplasters" in value, for this one use at the New Year. In giving the cracker money to the boys, the parents often make smaller presents to the girls, who are wont to buy paper flowers with their pennies, in proof of which the Chinese have a proverb which runs, "Girls like flowers; boys like crackers."

But this juvenile use of the whip-guns consumes only an infinitesimal part of the whole supply of the year. At many festivals and on many occasions the head of the house, the manager of the shop, or the officers of the gild require great quantities of these propitious harbingers. Greatest of all occasions is the passing of the year, when the people keep up the successor to the ancient custom of setting off the "bamboo guns" in order to drive away the evil spirits of the past twelvemonth and to usher in all that is good for the coming one. All night long the crackers have been popping in the town below, and an early gathering in the temple is held to add the final touch before the new day shall break.

When morning came, I wandered leisurely to my office through the business section of the town to watch the fun at the big shops. Never shall

I forget the picture of that street with its dozen or more great red strings of crackers hanging in front of the bigger hongs and seemingly waiting for some word to start the fusillade. Fortunately this came and the storm broke as I waited. For sheer noise, vivacity, and demonstrative liveliness I never have seen the equal of those snarling, bursting lines that poured out their wrath with incessant fervor upon the evil spirits below and shot up their welcome to the good ones above. Then, although this display on New Year's Day seemed grand enough to last a long time, there came more explosions as the shops took down their doors and began their routine business on the fifth or sixth of the moon. Furthermore, custom demands in certain parts that throughout the first ten days of the year there shall be occasional snappings of the whips, to be followed on the fifteenth, at the Feast of Lanterns, by a still greater demonstration.

When a new shop is opened, it is customary for all the front boards to be left up until just before the opening ceremony takes place; then one or two boards are taken down, the manager and his assistants come out to light a string of crackers, and, as the whips are snapping, the re-

maining boards come down to the sound of this propitious music of the land. Very often there are several strings hung from poles or tripods, and one is lighted after the other in such a way as to maintain a long, unbroken stream of noise.

In most parts of the empire it is also customary for an official, when he receives the seals of office from his predecessor, to have a string of crackers let off at the proper moment. And I must confess to having yielded myself to the pressure of my Chinese assistants in having purchased a few for use at the time we opened our new office at this place. Likewise, when a military official is leaving a post, he is usually accorded a send-off with crackers which have been subscribed for by his men.

And thus, from what has gone before, you may catch some idea of the persistency with which the little redskins have poked their noses into almost all the important celebrations of the Chinese life.

CURIOUS CLOCKS

BY CHARLES A. BRASSLER

MANY of the German cities of the Middle Ages enjoyed great prosperity, which they liked to exhibit in the form of splendid churches and other public buildings; and each one tried to excel the others. When, therefore, in the year 1352, Strassburg was the first to erect a great cathedral clock, which not only showed the hour to hundreds of observers, but whose strokes proclaimed it far and near, there was a rivalry among the rich cities as to which should set up within its walls the most beautiful specimen of this kind.

The citizens of Nuremberg, who were renowned all over the European world for their skill, were particularly jealous of Strassburg's precedence over them.

In 1356, when the Imperial Council, or Reichstag, held in Nuremberg, issued the Golden Bull, an edict or so-called "imperial constitution" which promised to be of greatest importance to the wel-

fare of the kingdom, a locksmith, whose name is unfortunately not recorded, took this as his idea for the decoration of a clock which was set up in the Frauenkirche in the year 1361. The emperor, Charles IV, was represented, seated upon a throne; at the stroke of twelve, the seven Electors, large moving figures, passed and bowed before him to the sound of trumpets.

This work of art made a great sensation.

Other European cities, naturally, desired to have smilar sights, and large public clocks were therefore erected in Breslau in 1368, in Rouen in 1389, in Metz in 1391, in Speyer in 1395, in Augsburg in 1398, in Lübeck in 1405, in Magdeburg in 1425, in Padua in 1430, in Dantzic in 1470, in Prague in 1490, in Venice in 1495, and in Lyons in 1598.

Not all, of course, were as artistic as that of Nuremberg; but no town now contented itself with a simple clockwork to tell the hours. Some had a stroke for the hours, and some had chimes; the one showed single characteristic moving figures, while others were provided with great astronomical works, showing the day of the week, month, and year, the phases of the moon, the course of the planets, and the signs of the zodiac.

On the town clock of Compiègne, which was built in 1405, three figures of soldiers, or "jaquemarts," so-called (in England they are called "Jacks"), struck the hour upon three bells under their feet; and they are doing it still. The great clock of Dijon has a man and a woman sitting upon an iron framework which supports the bell upon which they strike the hours. In 1714 the figure of a child was added, to strike the quarters. The most popular of the mechanical figures was the cock, flapping his wings and crowing.

The clock on the Aschersleben Rathaus shows, besides the phases of the moon, two pugnacious goats, which butt each other at each stroke of the hour; also the wretched Tantalus, who at each stroke opens his mouth and tries to seize a golden apple which floats down; but in the same moment it is carried away again. On the Rathaus clock in Jena is also a representation of Tantalus, opening his mouth as in Aschersleben; but here the apple is not present, and the convulsive efforts of the figure to open the jaws wide become ludicrous.

One of the first clocks with which important astronomical works were connected is that of the Marienkirche in Lübeck, now restored. Below, at the height of a man's head, is the plate which

shows the day of the week, month, etc.; these calculations are so reliable that the extra day of leap-year is pushed in automatically every four years. The plate is more than three meters in diameter. Above it is the dial, almost as large. The numbers from 1 to 12 are repeated, so that the hour-hand goes around the dial only once in twenty-four hours. In the wide space between the axis which carries the hand and the band where the hours are marked, the fixed stars and the course of the planets are represented. The heavens are here shown as they appear to an observer in Lübeck. In the old works the movement of the planets was given incorrectly, for they all were shown as completing a revolution around the sun in 360 days. Of course this is absurd. Mercury, for example, revolves once around the sun in eighty-eight days, while Saturn requires twenty-nine years and 166 days for one revolution. When this astronomical clock was repaired, some years ago, a very complicated system of wheels had to be devised to reproduce accurately the great difference in the movement of the planets. The work consumed two years. There are a great number of moving figures on the Lübeck clock, but they are not of the most

conspicuous interest. In spite of this, however, they excite more wonder among the crowds of tourists who are always present when the clock strikes twelve than the really remarkable and admirable astronomical and calendar works.

The Strassburg clock has, more than all others, an actually world-wide fame; and no traveler who visits the beautiful old city fails to see the curious and interesting spectacle which it offers daily at noontime. To quote from one such visitor: "Long before the clock strikes twelve, a crowd has assembled in the high-arched portico of the stately cathedral, to be sure of not missing the right moment. Men and women of both high and low degree, strangers and townspeople alike, await in suspense the arrival of the twelfth hour. The moment approaches, and there is breathless silence. An angel lifts a scepter and strikes four times upon a bell; another turns over an hour-glass which he holds in the hand. A story higher, an old man is seen to issue from a space decorated in Gothic style; he strikes four times with his crutch upon a bell, and disappears at the other side, while the figure of Death lets the bone in its hand fall slowly and solemnly, twelve times, upon the hour-bell. In still another story of the

clock, the Saviour sits enthroned, bearing in the left hand a banner of victory, the right hand raised in benediction. As soon as the last stroke of the hour has died away, the apostles appear from an opening at the right hand of the Master. One by one they turn and bow before Him, departing at the other side. Christ lifts His hand in blessing to each apostle in turn, and when the last has disappeared, He blesses the assembled multitude. A cock on a side tower flaps his wings and crows three times. A murmur passes through the crowd, and it disperses, filled with wonder and admiration at the spectacle it has witnessed."

In 1574, the Strassburg astronomical clock replaced the older one. It was mainly the work of Dasypodius, a famous mathematician, and it ran until 1789. Later, the celebrated clock-maker, Johann Baptist Schwilgué (born December 18, 1772), determined to repair it. After endless negotiations with the church authorities, he obtained the contract, and on October 2, 1842, the clock, as made over, was solemnly reconsecrated.

In very recent days, the clock of the City Hall in Olmütz, also renovated, has become a rival to that of the Strassburg Cathedral. In the year

1560, it was described by a traveler as a true marvel, together with the Strassburg clock and that of the Marienkirche in Dantzic. But as the years passed, it was most inconceivably neglected, and everything movable and portable about it was carried off. Now, after repairs which have been almost the same as constructing it anew, it works almost faultlessly. In the lower part of the clock is the calendar, with the day of the year, month, and week, and the phases of the moon, together with the astronomical plate; a story higher, a large number of figures move around a group of angels, and here is also a good portrait of the Empress Maria Theresa. Still higher is an arrangement of symbolical figures and decorations, which worthily crowns the whole. A youth and a man, above at the left, announce the hours and quarters by blows of a hammer. The other figures go through their motions at noonday. Scarcely have the blows of the man's hammer ceased to sound, when a shepherd boy, in another wing of the clock, begins to play a tune; he has six different pieces, which can be alternated. As soon as he has finished, the chimes, sixteen bells, begin, and the figures of St. George, of Rudolph of Hapsburg, with a priest, and of Adam and Eve,

appear in the left center. When they have disappeared, the chimes ring their second melody, and the figures of the right center appear,—the three Kings of the East, before the enthroned Virgin, and the Holy Family on the Flight into Egypt. When the bells ring for the third time, all the figures show themselves once more.

Clocks operated by electricity are, of course, the product of recent times.

England's largest electric clock was, as our illustration shows, recently christened in a novel manner. The makers, Messrs. Gent & Co,. of Leicester, entertained about seventy persons at luncheon on this occasion, using one of the four mammoth dials as a dining-table, a "time table," as the guests facetiously styled it.

The clock was installed, 220 feet above the ground, in the tower of the Royal Liverpool Society's new building, in Liverpool. Each of the four dials, which weigh fifteen tons together, measure twenty-five feet in diameter, with a minute-hand fourteen feet long. The hands are actuated electrically by a master clock connected with the Greenwich Observatory. After dark, they are illuminated by electricity, and are visible at a great distance.

Still larger are the dials of the great electric clock, situated 346 feet high, in the tower of the Metropolitan Life Building, on Madison Square, New York City. They measure twenty-six and one half feet in diameter. The minute-hand is seventeen feet from end to end, and twelve feet from center to point, while the hour-hand measures thirteen feet four inches in all, and eight feet four inches from the center of the dial outward. These immense hands are of iron framework, sheathed in copper, and weigh 1000 and 700 pounds respectively.

The big clock and the ninety-nine other clocks in the building are regulated from a master clock in the Directors' Room, on the second floor, which sends out minute impulses, and is adjusted to run within five seconds per month.

At night, the dial, hands, and numerals are beautifully illuminated, of which we present a picture, the enlarged minute-hand showing the length of exposure. The time is also flashed all night in a novel manner from the great gilded "lantern" at the apex of the tower, 696 feet above the pavement. The quarter-hours are announced from each of the four faces of the lantern by a single red light, the halves by two red flashes, the

three quarters by three flashes. On the hour, the white arc-lights are extinguished temporarily, and white flashes show the number of the hour.

This takes the place of the bells operated in the daytime. They are in four tones, G (1500 pounds), F (2000 pounds), E flat (3000 pounds), and B flat (7000 pounds), and each quarter-hour ring out the "Westminster Chimes," in successive bars. These are the highest chimes in the world, being situated on the forty-second floor, 615 feet above the street level; and they attract much attention from visitors.

MOTORING THROUGH THE GOLDEN AGE—PART I

BY ALBERT BIGELOW PAINE

IT was some time in June when we found ourselves drifting about Normandy in our motor-car, and one peaceful evening we came to Bayeux and stopped there for the night. Bayeux, which is about sixty miles from Cherbourg, was intimately associated with the life of William the Conqueror, and is to-day the home of the famous Bayeux tapestry, a piece of linen two hundred and thirty feet long and eighteen inches wide, on which is embroidered in colored wool the story of William's conquest of England.

William's queen, Matilda, is supposed to have designed this marvelous pictorial document, and even executed it, though probably with the assistance of her ladies. Completed in the eleventh century, it would seem to have been stored in the Bayeux cathedral, where it lay, scarcely remembered, for a period of more than six hundred

years. Then attention was called to its artistic and historic value, and it became still more widely known when Napoleon brought it to Paris and exhibited it at the Louvre. Now it is back in Bayeux, and has a special room in the museum there and a special glass case so arranged that you can walk around it and see each of its fifty-eight tableaux.

Matilda was ahead of her time in art. She was a futurist—anybody could see that who had been to one of the recent exhibitions. But she was exactly abreast in the matter of history. It is likely that she embroidered the events as they were reported to her, and her records are beyond price to-day. I suppose she sat in a beautiful room with her maids about her, all engaged at the great work, and I hope she looked as handsome as she looks in the fine painting that hangs above the case containing her masterpiece.

It was the closing hour when we got to the Bayeux museum, but the guardian generously gave us plenty of time to walk around and look at all the marvelous procession of horses and men, whose outlines have remained firm and whose colors have stayed fresh for more than eight hundred years. There is something fine

and stirring about Matilda's tapestry. No matter if Harold does seem to be having an attack of pleurisy, when he is only putting on his armor, or if the horses appear to have detachable legs. I could see that the Joy, who is a judge of horses, did not think much of Queen Matilda's drawing, and their riders were not much better. Still, it was wonderful how they did seem to "go" in some of the battles, and they made that old story seem very real to us. Tradition has it that the untimely death of Matilda left the tapestry unfinished, for which reason William's coronation does not appear.

Next day, at Caen, we visited Matilda's tomb, in a church which she herself founded. Her remains have never been disturbed. We also visited the tomb of the Conqueror, on the other side of the city at the church of St. Etienne. But the Conqueror's bones are not there now; they were scattered by the Huguenots in 1562.

We enjoyed Caen. We wandered about among its ancient churches and still more ancient streets. At one church a wedding was going on, and Narcissa and I lingered a little, to assist. One does not get invited to a Normandy wedding every day, especially in the old town where Wil-

liam I organized his followers to invade England. No doubt this bride and groom were descendants of some of William's wild Normans, but they looked very mild and handsome and modern, to us.

Caen became an important city under William the Conqueror. Edward III of England captured and pillaged it about the middle of the fourteenth century, at which time it was larger than any city in England, except London. To-day, Caen has less than fifty thousand inhabitants, and is mainly interesting for its art treasures and its memories.

Our travel program included Rouen, Amiens, and Beauvais, cathedral cities lying more to the northward. It was at Rouen that we started to trace backward the sacred footsteps of Joan of Arc, saint and savior of France. For it is at Rouen that the pathway ends. When we had visited the great cathedral, whose fairylike façade is one of the most beautiful in the world, we drove to a corner of the old market-place and stopped before a bronze tablet which tells that on this spot on a certain day in May, 1431 (it was the 29th), a young girl who had saved her country from an invading and conquering enemy was burned at

the stake. That was five hundred years ago, but time has not dulled the tragedy of the event, its memory of suffering, its humiliation. All those centuries since, the nation that Joan saved has been trying to atone for her death. Streets have been named for her and statues have been set up for her in public squares all over France.

There is little in Rouen to-day that Joan saw. The cathedral was there in her time, but she was never permitted to enter it. There is a wall which was a part of the chapel where she had her final hearing before her judges; there are some houses which she must have passed, and there is a tower which belonged to the castle in which she was imprisoned, though it is not certain that it is Joan's tower. There is a small museum in it, and among its treasures we saw the manuscript article "St. Joan of Arc," by Mark Twain, who, in the "Personal Recollections," has left to the world the loveliest picture of that lovely life.

It was our purpose to leave Rouen by the Amiens road, but when we got to it and looked up a hill that, about half-way to the zenith, arrived at the sky, we decided to take a road that led off toward Beauvais. We could have climbed that hill well enough, and I wished later we had

done so. As it was, we ran along pleasantly during the afternoon, and attended evening services in an old church at Grandvilliers, a place that we had never heard of before, but where we found an inn as good as any in Normandy.

It is curious with what exactness fate times its conclusions. If we had left Grandvilliers a few seconds earlier or later, it would have made all the difference, or if I had not pulled up a moment to look at a lovely bit of brookside planted with poplars, or if I had driven the least bit slower or the least bit faster during the first five miles; or—

Oh, never mind—what happened was this: we had just mounted a long steep hill on high speed and I had been bragging of the car,—always a dangerous thing to do,—when I saw ahead of us a big two-wheeled cart going in the same direction as ourselves, and, beyond it, a large car approaching. I could have speeded up and cut in ahead of the cart, but I was feeling well, and I thought I should do the courteous thing, the safe thing. So I fell in behind it. Not far enough behind, however, for as the big car came opposite, the sleepy driver of the cart awoke, pulled up his horse short, and we were not far enough behind

for me to get the brakes down hard and suddenly enough to stop before we touched him. It was not a smash—it was just a push. But it pushed a big hole in our radiator, smashed up one of our lamps, and crinkled up our left mud-guard. The radiator was the worst. The water poured out. Our car looked as if it had burst into tears.

We were really stupefied at the extent of our disaster.

The big car at once pulled up to investigate and console us. The occupants were Americans, too, from Washington—kindly people who wanted to shoulder some of the blame. Their chauffeur, a Frenchman, bargained with the cart driver who had wrecked us to tow us to the next town, where there were garages. Certainly, pride goes before a fall. Five minutes earlier we were sailing along in glory, exulting over the prowess of our vehicle. Now, all in the wink of an eye, our precious conveyance, stricken and helpless, was being towed to the hospital, its owners trudging mournfully behind.

The village was Poix; and if one had to be wrecked anywhere, I cannot think of a lovelier spot for disaster than Poix de la Somme. It is just across in Picardy, and the river Somme is a

little brook that ripples and winds through poplar-shaded pastures, sweet meadows, and deep groves. In every direction are the loveliest walks, with landscape pictures at every turn. The village itself is drowsy, kindly, simple-hearted. The landlady at our inn was a large, motherly soul that, during the week of our stay, the Joy learned to love, and I to be grateful to.

For the others did not linger. Paris was not far away, and had a good deal to recommend it. The new radiator ordered from London might be delayed. So, early next morning they were off for Paris by way of Amiens and Beauvais, and the Joy and I settled down to such employments and amusements as we could find while waiting for repairs. We got acquainted with the garage man's family, for one thing. They lived in the same little court with the shop, and we exchanged Swiss French for their Picardese and were bosom friends in no time. We spruced up the car, too, and every day took long walks, and every afternoon took some luncheon and our spirit-stove and followed down the Somme to a little bridge and there made our tea. Then, sometimes, we read; and once, when I was reading aloud from "Joan of Arc" and had finished the great battle of

Patay, we suddenly remembered that it had happened on the very day on which we were reading, the eighteenth of June.

How little we guessed that in such a short time our peaceful little river would give its name to a battle a thousand times greater than any that Joan ever fought!

One day I hired a bicycle for the Joy, and entertained the village by pushing her around the public square until she learned to ride alone. Then I hired one for myself, and we went out on the road together.

About the end of the third day we began to look for our radiator, and visited the express-office with considerable regularity. Presently the village knew us, why we were there, and what we were expecting. They became as anxious about it as ourselves.

One morning, as we started toward the express-office, a man in a wagon passed and called out something. We did not catch it; but presently another met us, and, with a glad look, told us that our goods had arrived and were now in the delivery wagon on the way to the garage. We did not recognize either of those good souls, but they were interested in our welfare. Our

box was at the garage when we arrived there. It was soon opened and the new radiator in place. The other repairs had been made, and once more we were complete. We decided to start next morning to join the others in Paris.

Morning comes early on the longest days of the year, and we had eaten our breakfast, had our belongings put into the car, and were ready to be off by seven o'clock. What a delicious morning it was! Calm, glistening, the dew on everything. As long as I live I shall remember that golden morning when the Joy, age eleven, and I went gipsying together, following the winding roads and byways that led us through pleasant woods, under sparkling banks, and along the poplar-planted streams of Picardy. We did not keep to highways at all. We were in no hurry, and we took any lane that seemed to lead in the right direction, so that much of the time we appeared to be crossing fields—fields of flowers, many of them, scarlet poppies, often mingled with blue corn-flowers and yellow mustard—fancy the vividness of that color!

Traveling in that wandering fashion, it was noon before we got down to Beauvais, where we stopped for luncheon supplies and to see what is

perhaps the most remarkable cathedral in the world. It is one of the most beautiful, and, though it consists only of choir and transepts, it is one of the largest. Its inner height, from floor to vaulting, is 158 feet. The average ten-story skyscraper could be set inside of it. There was once a steeple that towered to the giddy height of five hundred feet, but in 1573, when it had been standing three hundred years, it fell down from having insufficient support. The inner work is of white stone,—marble,—and the whole place seems filled with light.

Beauvais has many interesting things, but the day had become very warm, and we did not linger. We found some of the most satisfactory pastries I have ever seen in France, fresh, and dripping with richness; also a few other delicacies, and by and by, under a cool apple-tree on the road to Compiègne, the Joy and I spread out our feast and ate it and listened to some little French birds singing, *"Vite! Vite! Vite!"* meaning that we must be "Quick! Quick! Quick!" so they could have the crumbs.

It was at Compiègne that Joan of Arc was captured by her enemies, just a year before that last fearful day at Rouen. She had relieved Orleans,

she had fought Patay, she had crowned the king at Rheims; she would have had her army safely in Paris if she had not been withheld by a weak king, influenced by his shuffling, time-serving counselors. She had delivered Compiègne the year before, but now again it was in trouble, besieged by the Duke of Burgundy.

"I will go to my good friends of Compiègne," she said, when the news came; and taking such force as she could muster, in number about six hundred cavalry, she went to their relief.

From a green hill commanding the valley of the Oise the Joy and I looked down upon the bright river and pretty city which Joan had seen on that long ago afternoon of her last battle for France. Somewhere on that plain the battle had taken place, and Joan's little force for the first time had failed. There had been a panic; Joan, still fighting and trying to rally her men, had been surrounded, dragged from her horse, and made a prisoner. She had led her last charge.

We crossed a bridge and entered the city, and stopped in the big public square facing Laroux's beautiful statue of Joan which the later "friends of Compiègne" have raised to her memory. It is Joan in semi-armor, holding aloft her banner; and

on the base in old French is inscribed, *"Je yray voir mes bons amys de Compiègne"*—"I will go to see my good friends of Compiègne."

Many things in Compiègne are beautiful, but not many of them are very old. Joan's statue looks toward the handsome and richly ornamented hôtel de ville, but Joan could not have seen this building, for it dates a hundred years after her death. There are the handsome churches, in one or both of which she doubtless worshiped, when she had first delivered the city, and possibly a few houses of that ancient time still survive.

Next morning we visited the palace. It has been much occupied by royalty, for Compiègne was always a favorite residence of the rulers of France. Napoleon came there with the Empress Marie Louise, and Louis Philippe and Napoleon III both found retirement there.

I think it could not have been a very inviting or restful home. There are long halls and picture-galleries, all with shiny floors and stiffly placed properties, and the royal suites are just a series of square, fancily decorated and upholstered boxes strung together, with doors between. But then palaces were not meant to be cozy. Pretty soon we went back to the car and drove

into a big forest for ten miles or more to an old feudal castle,—such a magnificent old castle, all towers and turrets and battlements,—the château of Pierrefonds, one of the finest in France. It stands upon a rocky height overlooking a lake, and it does not seem so old, though it had been there forty years when Joan of Arc came, and it looks as if it might remain there about as long as the hill it stands on. It was built by Louis of Orleans, brother of Charles VI, and the storm of battle has often raged about its base. Here and there it still shows the mark of bombardment, and two cannon-balls stick fast in the wall of one of its solid towers. Pierrefonds was in bad repair, had become well nigh a ruin, in fact, when Napoleon III at his own expense engaged Viollet-le-Duc to restore it, in order that France might have a perfect type of the feudal castle in its original form. It stands to-day as complete in its structure and decoration as it was when Louis of Orleans moved in, more than five hundred years ago, and it conveys exactly the solid, home surroundings of the mediæval lord. It is just a show place now, and its vast court and its chapel and halls of state are all splendid enough, though nothing inside can be quite as magnificent as its

mighty assemblage of towers and turrets rising above the trees and reflecting in the blue waters of a placid lake.

It began raining before we got to Paris, so we did not stop at Crepy-en-Valois or Senlis, or Chantilly, or St. Denis. In fact, neither the Joy nor I hungered even for Paris, which we had once visited. The others had already seen their fill, so, with only a day's delay, we all took the road to Versailles.

It was at Rambouillet that we lodged, an ancient place with a chateau and a vast park; also, an excellent inn—the Croix Blanche—one of those that you enter by driving through to an inner court. Before dinner we took a walk into the park, along the lakeside and past the chateau, where Frances I died, in 1547.

We were off next morning, following the rich and lovely valley of the Eure, to Chartres. We had already seen the towers from a long distance, when we turned at last into the cathedral square, and remembered the saying that "The choir of Beauvais and the nave of Amiens, the portal of Rheims and the towers of Chartres would together make the finest church in the world." To confess the truth, I did not think the towers of

Chartres as handsome as those of Rouen, but then I am not a purist in cathedral architecture. Certainly, the cathedral itself is glorious. I shall not attempt to describe it. Any number of men have written books trying to do that, and most of them have failed. I only know that the wonder of its architecture, the marvel of its relief carving, "lace in stone," and the sublime glory of its windows somehow possessed us, and we did not know when to go. I met a woman once who said she had spent a month at Chartres and put in most of it sitting in the cathedral, looking at those windows. When she told me of it I had been inclined to be scornful. I was not so any more. Those windows, made by some unknown artist, dead five hundred years, invite a lifetime of contemplation.

We left Chartres by one of the old city gates, and through a heavenly June afternoon followed the straight, level way to Châteaudun, an ancient town perched upon the high cliff above the valley of the Loir, which is a different river from the Loire—much smaller and more picturesque.

The château itself hangs on the very verge of the cliffs, with starling effect, and looks out over a picture valley as beautiful as any in France. This was the home of Dunois, who left it to fight

under Joan of Arc. He was a great soldier, one of her most loved and trusted generals. We spent an hour or more wandering through Dunois's ancient seat, with an old guardian who clearly was in love with every stone of it and who time and again reminded us that it was more interesting than any of the great châteaux of the Loire, Blois especially, in that it had been scarcely restored at all. About the latest addition to Châteaudun was a beautiful open stairway of the sixteenth century, in perfect condition to-day. On the other side is another fine façade and stairway, which Dunois himself added. In a niche there stands a statue of the famous old soldier, probably made from life. If only some sculptor or painter might have preserved for us the features of Joan!

Through that golden land which lies between the Loir and the Loire we drifted through a long summer afternoon, and came at evening to a noble bridge that crossed a wide, tranquil river, beyond which rose the towers of ancient Tours, capital of Touraine.

The Touraine was a favorite place for kings, who built their magnificent country palaces in all

directions. There are more than fifty châteaux within easy driving distance of Tours.

We did not, by any means, intend to visit all of the châteaux, for château visiting from a diversion may easily degenerate into labor. We had planned especially, however, to see Chinon, where Joan of Arc went to meet the king to ask for soldiers.

This is not on the Loire, but on a tributary a little south of it, the Vienne, with the castle crowning the long hill, or ridge, above the town. Some time during the afternoon we came to the outskirts of the ancient place, and looked up to the ruined battlements and towers where occurred that meeting which meant the liberation of France.

The château to-day is the ruin of what originally was three châteaux, built at different times, but closely strung together, so that in ruin they are scarcely divided.

The oldest, Coudray, was built in the tenth century, and still shows three towers standing, in one of which Joan of Arc lived during her stay at Chinon. The middle château was built a hundred years later, on the site of a Roman fort, and

it was in one of its rooms, a fragment of which still remains, that Charles VII received the shepherd-girl from Domremy. The Château of St. George was built in the twelfth century, by Henry II of England, who died there in 1189. Though built two hundred years later than Coudray, nothing remains of it to-day but some foundations.

Chinon is a much more extensive ruin than we had expected. Even what remains must be nearly a quarter of a mile in length, and its vast crumbling walls and crenelated towers make it strikingly picturesque. But its ruin is complete, none the less. Once through the entrance tower, and you are under nothing but the sky, with your feet on the grass; there is no longer a shelter there, even for a fugitive king. You wander about viewing it scarcely more than as a ruin, at first, a place for painting, for seclusion, for dreaming in the sun. Then all at once you are facing a wall in which, half-way up, where once was the second story, there is a restored fireplace and a tablet which tells you that in this room Charles VII received Joan of Arc. It is not a room now; it is just a wall, a fragment, with vines matting its ruined edges.

You cross a stone foot-bridge to the tower where Joan lived, and that also is open to the sky and bare and desolate. While, beyond it, there was a little chapel where she prayed, but that is gone. There are other fragments and other towers, but they merely serve as a setting for those which the intimate presence of Joan made sacred.

The Maid did not go immediately to the castle on her arrival in Chinon. She put up at an inn down in the town and waited the king's pleasure. His paltering advisers kept him dallying, and postponing his consent to see her, but through the favor of his mother-in-law, Yolande, Queen of Sicily, Joan and her suite were presently housed in Coudray.

The king was still unready to see Joan. She was only a stone's throw away now, but the whisperings of his advisers kept her there. When there were no further excuses for delay they contrived a trick—a deception. They persuaded the king to put another on the throne, one like him and in his royal dress, so that Joan might pay homage to this make-believe king, thus proving that she had no divine power or protection which would assist her in identifying the real one.

In the space where now is only green grass and sky and a broken wall, Charles VII and his court gathered to receive the shepherd-girl who had come to restore his kingdom. It was evening, and the great hall was lighted, and at one end of it was the throne with its imitation king, and, I suppose, at the other this fireplace with its blazing logs. Down the center of the room were the courtiers, formed in two ranks, facing so that Joan might pass between them to the throne. The occasion was one of great ceremony—Joan and her suite were welcomed with fine honors. Banners waved, torches flared, trumpets blown at intervals marked the stages of her progress down the great hall; every show was made of paying her great honor—everything that would distract her and blind her to their trick.

Charles VII, dressed as a simple courtier, stood a little distance from the throne. Joan, advancing to within a few steps of the pretended king, raised her eyes. Then for a moment she stood silent, puzzled. They expected her to kneel and make obeisance; but a moment later she turned, and, hurrying to the rightful Charles, dropped on her knee and gave him heartfelt salutation. She had never seen him, and was without knowledge

of his features. The protectors she had known in her visions had not failed her. It was, perhaps, the greatest moment in French history.

In the quest for outlying châteaux, one is likely to forget that Tours itself is very much worth while. Tours has been a city ever since France had a history, and it fought against Caesar as far far back as 52 B. C. It took its name from the Gallic tribe of that section, the Turoni, dwellers in the cliffs, I dare say, along the Loire.

Tours was beloved by French royalty. It was the capital of a province as rich as it was beautiful. Among French provinces, Touraine was always the aristocrat. Its language has been kept pure. To this day, the purest French in the world is spoken at Tours. The mechanic who made some repairs for me at the garage leaned on the mud-guard, during a brief intermission of that hottest of days, and told me about the purity of the French language at Tours; and if there was anything wrong with his own locution, my ear was not fine enough to detect it. To me it seemed as limpid as something distillled. Imagine such a thing happening in—say Bridgeport. Tours is still proud, still the aristocrat, still royal.

The Germans held Tours during the early

months of 1871, but there is now no trace of their occupation. It was a bad dream which Tours does not care even to remember.

Tours contains a fine cathedral, and the remains of what must have been a still finer one—two noble towers, so widely separated by streets and buildings that it is hard to imagine them ever having belonged to one structure. They are a part of the business of Tours now. Shops are under them, lodgings in them. One of these old relics is called the clock-tower, the other, the tower of Charlemagne, because Luitgard, his third queen, was buried beneath it.

MOTORING THROUGH THE GOLDEN AGE—PART II

BY ALBERT BIGELOW PAINE

IT was a July morning when we got away from Tours—one of those sweltering mornings—and I had spent an hour or two at the garage putting on all our repaired tires and one new one. It was not a good morning for exercise; and by the time we were ready to start, I was a rag. Narcissa photographed me, because she said she had never seen me look so interesting before. She made me stand in the sun bareheaded and hold a tube in my hand, as if I had not enough to bear, already.

But I was repaid the moment we were off. Oh, but it was cool and delicious gliding along the smooth, shaded road! One can almost afford to get as hot and sweltering and cross and gasping as I was for the sake of sitting back and looking across the wheel down a leafy avenue facing the breeze of your own making, a delicious nectar

that bathes you through and cools and rests and soothes—an anodyne of peace.

By and by, being really cool in mind and body, we drew up abreast of a meadow which lay a little below the road, a place with a brook and overspreading shade, and with some men and women harvesting not far away. We thought they would not mind if we lunched there, and I think they must have been as kind-hearted as they were picturesque, for they did not offer to disturb us. It was a lovely spot, and did not seem to belong to the present-day world at all. How could it, with the homes of the old French kings all about, and with these haymakers, whose fashions have not minded the centuries, here in plain view to make us seem a part of an ancient tale?

Chenonceaux, the real heart of the royal district, is not on the Loire itself, but on a small tributary, the Cher. I do not remember that I noticed the river when we entered the grounds, but it is a very important part of the château, which, indeed, is really a bridge over it—a supremely beautiful bridge, to be sure, but a bridge none the less, entirely crossing the pretty river by means of a series of high foundation arches. Upon these arches rises the rare edifice which

Thomas Bohier, a receiver-general of taxes, began back in 1515. Bohier did not extend Chenonceaux entirely across the river. The river to him, merely served as a moat. The son who followed him did not have time to make additions. Francis I came along, noticed that it was different from the other châteaux he had confiscated, and added it to his collection. Our present-day collectors cut a poor figure by the side of Francis I. Think of getting together assortments of coins and postage-stamps and ginger-jars when one could go out and pick up châteaux! It was the famous Catherine de Medici, daughter-in-law of Francis I, who finished the palace, extending it across the Cher, making it one of the most beautiful places in the world.

We stopped a little to look at the beautiful façade of Chenonceaux, then crossed the drawbridge, or what is now the substitute for it, and were welcomed at the door by just the proper person—a fine, dignified woman, of gentle voice and perfect knowledge. She showed us through the beautiful home, for it is still a home, having been bought by Mr. Meunier, of chocolate fame and fortune. I cannot say how glad I am that Mr. Meunier purchased Chenonceaux. He did

nothing to the place to spoil it, and it is not a museum. The lower rooms which we saw have many of the original furnishings. The ornaments, the tapestries, the pictures, are the same. There is hardly another place, I think, where one may come so nearly stepping back through the centuries.

We went out into the long wing that is built on the arches above the river, and looked down on the water flowing below. Our conductor told us that the supporting arches had been built on the foundations of an ancient mill. The beautiful gallery which the bridge supports must have known much gaiety; much dancing and promenading up and down; many gallant speeches and some heartache. The Joy wanted to see the dungeons, but perhaps there never were any real dungeons at Chenonceaux. Let us try to think so.

Orleans is on the Loire, and we drove to it in the early morning from Meung, where we had spent the night. I do not know what could be more lovely than that leisurely hour—the distance was fifteen miles—under cool, outspreading branches, with glimpses of the bright river and vistas of happy fields.

We did not even try to imagine, as we approached the outskirts, that the Orleans of Joan's time presented anything of its appearance to-day. Orleans is a modern, or modernized city, and, except the river, there could hardly be anything in the prospect that Joan saw. But it was the scene of her first military conquest, and added its name to the title by which she belongs to history. That is enough to make it one of the holy places of France.

It has been always a military city, a place of battles. Cæsar burned it, Attila attacked it, Clovis captured it—there was often war of one sort or another going on there. The English and Burgundians would have had it in 1429 but for the arrival of Joan's army.

Joan was misled by her generals, whose faith in her was not complete. Orleans lies on the north bank of the Loire; they brought her down on the south bank, fearing the prowess of the enemy's forces. Discovering the deception, the Maid promptly sent the main body of her troops back some thirty-five miles to a safe crossing, and, taking a thousand men, passed over the Loire and entered the city by a gate which was still held by the French. That the city was not completely

surrounded made it possible to attack the enemy from within and without, while her presence among the Orleanese would inspire them with new hope and valor. Mark Twain, in his "Recollections," pictures the great moment of her entry.

It was eight in the evening when she and the troops rode in at the Burgundy gate. . . . She was riding a white horse, and she carried in her hand the sacred sword of Fierbois. You should have seen Orleans then. What a picture it was! Such black seas of people, such a starry firmament of torches, such roaring whirlwinds of welcome, such booming of bells and thundering of cannon! It was as if the world was come to an end. Everywhere in the glare of the torches one saw rank upon rank of upturned, white faces, the mouths wide open, shouting, and the unchecked tears running down; Joan forged her slow way through the solid masses, her mailed form projecting above the pavement of heads like a silver statue. The people about her struggled along, gazing up at her through their tears with the rapt look of men and women who believed they are seeing one who is divine; and always her feet were being kissed by grateful folk, and such as failed of that privilege touched her horse and then kissed their fingers.

This was the twenty-ninth of April. Nine days later, May 8, 1429, after some fierce fighting, during which Joan was severely wounded, the besiegers were scattered. Orleans was free. Mark Twain writes:

No other girl in all history has ever reached such a summit of glory as Joan of Arc reached that day. . . . Orleans will never forget the eighth of May, nor ever fail to celebrate it. It is Joan of Arc's day—and holy.

Two days, May seventh and eighth, are given each year to the celebration, and Orleans in other ways has honored the memory of her deliverer. A wide street bears her name, and there are noble statues, and a museum, and church offerings. The Boucher home, which sheltered Joan during her sojourn in Orleans, has been preserved—at least, a house is still shown as the Boucher house, though how much of the original structure remains no one of this day seems willing to decide.

We drove there first, for it is the only spot in Orleans that can claim even a possibility of having known Joan's actual presence. It is a house of the old half-timbered architecture, and if these are not the veritable walls that Joan saw, they must, at least, bear a close resemblance to those of the house of Jacques Boucher, treasurer of the Duke of Orleans, where Joan was made welcome. A few doors away is a fine old mansion, now a museum, and fairly overflowing with objects of every conceivable sort relating to Joan of Arc. Books, statuary, paintings, armor, banners, offer-

ings, coins, medals, ornaments, engravings, letters—thousands upon thousands of articles gathered here in the Maid's memory. I think there is not one of them that her hand ever touched, or that she ever saw, but in their entirety they convey, as nothing else could, the reverence that Joan's memory inspired during the centuries that have gone since her presence made this ground sacred. Until the revolution, Orleans preserved Joan's banner, some of her clothing, and other genuine relics; but then the mob burned them, probably because Joan delivered France to royalty. We were shown an ancient copy of the banner, still borne, I believe, in the annual festivities. Baedeker speaks of arms and armor worn at the siege of Orleans, but the guardian of the place was not willing to guarantee their genuineness. I think Narcissa, who worships the memory of Joan, was almost sorry that he thought it necessary to be so honest. He did show us a photograph of Joan's signature. She wrote it "Jehanne," and her pen must have been guided by her secretary, for Joan could neither read nor write.

We drove to the Place Martroi to see the large equestrian statue of Joan by Foyatier, with reliefs

by Vital Dubray. It is very imposing, and the reliefs, showing the great moments in Joan's career, are really fine. We did not care to hunt for other memorials. It was enough to drive about the city, trying to pick out a house here and there that looked as if it might have been standing five hundred years, but if there were any of that age—any that had looked upon the wild joy of Joan's entrance and upon her triumphal departure, they were very few indeed.

It is a grand, straight road from Orleans to Fontainebleau, and it passes through Pithiviers, which did not look especially interesting, though we discovered, when it was too late, that it is noted for its almond-cakes and lark-pies. I wanted to go back, then, but the majority decided against me, and in the late afternoon we entered the majestic royal forest, and by and by came to the palace and the little town and to a pretty hotel on a side street, that was really a village inn for comfort and welcome. There was still plenty of daylight, mellow, waning daylight, and the palace was not far away. We would not wait for it until morning.

I think we most enjoyed seeing palaces about

the closing-hour. There are seldom any other visitors then, and the fading afternoon sunlight in the vacant rooms softens their garish emptiness and seems, somehow, to bring nearer the rich pageant of life and love and death that flowed through them so long, and then one day came to an end, and now it is not passing any more. It was really closing-time when we arrived at the palace, but the custodian was lenient, and for an hour we wandered through gorgeous galleries, and salons, and suites of private apartments, where kings and queens lived gladly, loved madly, died sadly for about three hundred years. Francis I built Fontainebleau, on the site of a mediæval castle. He was a hunter, and the forests of Fontainebleau were always famous hunting-grounds. Louis XIII, who was born in Fontainebleau, built the grand entrance staircase, from which, a hundred years later, Napoleon Bonaparte bade good-by to his generals before starting for Elba. Other kings have added to the place and embellished it; the last being Napoleon III, who built for Eugénie the bijou theater across the court.

It may have been our mood, it may have been the tranquil evening light, it may have been reality

that Fontainebleau was more friendly, more alive, more a place for living men and women to inhabit than any other palace we have seen. It was hard to imagine Versailles as having ever been a home for anybody. At Fontainebleau I felt that we were intruding—that Marie Antoinette, Marie Louise, or Eugénie might enter at any moment and find us there.

The apartments of the first Napoleon and Marie Louise tell something, too, but the story seems less intimate. Yet the table is there on which Napoleon signed his abdication, while an escort waited to take him to Elba, and in his study is his writing-table; and there is a bust by Canova; but that is marble, and does not encourage the thought of life.

For size and magnificence the library is the most impressive room in Fontainebleau. It is very lofty, very splendid, and it is two hundred and sixty-four feet long. Napoleon III gave great hunting-banquets there. Since then it has always been empty, except for visitors.

The light was getting dim by the time we reached the pretty theater which Louis Napoleon built for Eugénie. It is a very choice place, and we were allowed to go on the stage and behind

the scenes and up in the galleries, and there was something in the dusky vacancy of that little playhouse, built to amuse the last empress of France, that affected us almost more than any of the rest of the palace, though it was built not so long ago and its owner is still alive. It is not used, the custodian told us—has never been used since Eugénie went away. I believe nothing at Fontainebleau gave more delight to Narcissa and the Joy than this dainty theater.

From a terrace back of the palace we looked out on a pretty lake where Eugénie's son used to sail a miniature, full-rigged ship, large enough, if one could judge from a picture we saw, to have held the little prince himself. There was still sunlight on the tree-tops, and these and the prince's pretty pavilion reflecting in the placid water made the place beautiful. But the little vessel was not there. I wished, as we watched, that it might come sailing by. I wished that the prince had never been exiled, and that he had not grown up and gone to his death in a South African jungle. I wished that he might be back to sail his ship again, and that Eugénie might be young and have her theater once more, and that Louis Napoleon's hunting-parties might still gather in the painted

ball-room and fill the vacant palace with something besides mere curiosity and vain imaginings.

We had meant to go to Barbizon, home of the artist Millet, but we got lost in the forest next morning, and when we found ourselves, we were a good way in the direction of Melun and concluded to keep on, consoling ourselves with the thought that Barbizon is not Barbizon any more, and would probably be a disappointment, anyway. We kept on from Melun, also, after buying some luncheon things, and all day traversed that beautiful rolling district which lies east of Paris and below Rheims, arriving toward evening at Epernay, center of the champagne district. We had no need to linger there. We were anxious to get to Rheims.

We were still in the hills when we looked on the valley of the Vesle and saw a city outspread there, and in its center, mellowed and glorified by seven kindly centuries, the architectural and ecclesiastical pride of the world, the Cathedral of Rheims. Large as the city was, that great central ornament dwarfed and dominated its surroundings. Thus Joan of Arc had seen it when, at the head of her victorious army, she conducted

the king to Rheims for his coronation. She approached the fulfilment of her misssion, the completion of the great labor laid upon her by the voices of her saints. Mark Twain tells of Joan's approach to Rheims, of the tide of cheers that swept her ranks at the vision of the distant towers.

It was the sixteenth of July that Joan looked down upon Rheims, and now four hundred and eighty-five years later it was again July, with the same summer glory on the wood, the same green and scarlet in the poppied fields, the same fair valley, the same stately towers rising to the sky. But no one can ever feel what Joan felt, can ever put into words, ever so faintly, what that moment and that vision meant to the Domremy shepherd-girl.

Descending the plain, we entered the city, crossed a bridge, and made our way to the cathedral square. Then presently we were at the doorway where Joan and her king had entered—the portal which has been called the most beautiful this side of paradise. How little we dreamed that destruction and disfigurement lay only a few weeks ahead!

It is not required any more that one should

write descriptively of the now vanished glories of the church of Rheims, it has been done so thoroughly and so numerously by those so highly qualified for the undertaking. Fergusson, who must have been an authority, for the guide-book quotes him, calls it, "perhaps the most beautiful structure produced in the Middle Ages."

The cathedral was already two hundred years old when Joan arrived in 1429. But it must have looked quite fresh and new, then, for nearly five centuries later it seemed to have suffered little. Some of the five hundred and thirty statues of its wonderful portal were weatherworn and scarred, to be sure, but the general effect of beauty and completeness was not disturbed.

Many kings had preceded Joan and her sovereign through the sacred entrance. Long before the cathedral was built, French sovereigns had come to Rheims for their coronation. Here Clovis had been baptized nearly a thousand years before.

It was a mighty assemblage that gathered for the crowning of Joan's king. France, overrun by an invader, had known no real king for years —had, indeed, well nigh surrendered her nationality. Now victory, in the person of a young

girl from an obscure village, had crowned their arms and brought redemption to their throne. No wonder the vast church was packed, and that crowds were massed outside. From all directions had come pilgrims to the great event—persons of every rank, among them two shepherds, Joan's aged father and uncle, who had walked from Domremy, one hundred and twenty miles, to verify with their own eyes what their ears could not credit.

We are told that the abbot, attended by the archbishop, his canons, and a deputation of nobles, entered the crowded church, followed by the five mounted knights who rode down the great central aisle, clear to the choir, and then at a signal backed their prancing steeds all the distance to the great doors.

Very likely the cathedral at Rheims had never known such a throng until that day, nor heard such a mighty shout as went up when Joan and the king, side by side and followed by a splendid train, appeared at the great side entrance and moved slowly to the altar.

I think there must have fallen a deep hush then —a petrified stillness that lasted through the long ceremonial, while every eye feasted itself upon

the young girl standing there at the king's side, holding her victorious standard above him—the banner that "had borne the burden and had earned the victory," as she would one day testify at her trial. I am sure that vast throng would keep silence, scarcely breathing, until the final word was spoken and the dauphin had accepted the crown and placed it upon his head. But then we may hear, borne faintly down the centuries, the roar of renewed shouting that told to those waiting without that the great ceremony was ended, that Charles VII of France had been anointed king. As in a picture we seemed to see the shepherd-girl on her knees saying to the crowned king: "My work which was given me to do is finished: give me your peace, and let me go back to my mother, who is poor and old, and has need of me."

But the king raises her up and praises her and confers upon her nobility and titles, and asks her to name a reward for her service, and we hear her ask that Domremy, "poor and hard-pressed by reason of the war," may have its taxes remitted.

Nothing for herself—no more than that; and in the presence of all the great assemblage Charles

VII decreed that by grace of Joan of Arc, Domremy should be free from taxes forever.

There within those walls it was all reality five hundred years ago. One did not study the interior to discover special art values or to distinguish in what manner it differed from others we had seen. For us the light from its great rose-window and upper arches was glorified because once it fell upon Joan of Arc in that supreme moment when she saw her labor finished and asked only that she might return to Domremy and her flocks. The statues in the niches were sacred because they looked upon that scene, the altar paving was sanctified because it felt the pressure of her feet.

Back of the altar stood a statue of Joan unlike any we had seen elsewhere, and to us more beautiful. It was not Joan with her banner aloft, her eyes upward. It was Joan with her eyes lowered, looking at no outward thing, her face passive—the saddest face and the saddest eyes in the world—Joan the sacrifice of her people and her king.

It may have been two miles out of Rheims that we met the flood. There had been one heavy shower as we entered the city, but presently the sun broke out, bright and hot, too bright and too

hot for permanence. Now suddenly all was black again, there was a roar of thunder, and then such an opening of the water-gates of the sky as would have disturbed Noah. I turned the car over to the side of the road, but the tall, high-trimmed trees afforded no protection. Our top was a shelter, but not a complete one—the wind drove the water in, and in a moment our umbrellas were sticking out in every direction and we had huddled together like chickens. The world was blotted out. I had the feeling at moments that we were being swept down some great submarine current.

I don't know how long the inundation lasted. It may have been five minutes or thirty. Then suddenly it stopped—it was over—the sun was out.

There was then no mud in France,—not in the highroads,—and a moment or two later we had revived, our engine was going, and we were gliding between fair fields—fresh, shining fields where scarlet poppy-patches were as pools of blood. How peaceful it all was then, for there is no lovelier land than the Marne district from Rheims to Châlons and to Vitry-le-Francois. Yet it has been often a war district—a battle-

ground; it has been fought over time and again since the ancient allies defeated Attila and his Huns there, checking the purpose of the "Scourge of God," as he called himself. It could never be a battle-ground again, we thought—the great nations were too advanced for war. Ah me! within two months from that day men were lying dead across that very road, shells were tearing at the lovely fields, and another stain had mingled with the trampled poppies.

Châlons-sur-Marne, like Rheims and Epernay, is a champagne center and seemed prosperous. There are some churches there, but they did not seem of great importance.

It was in July when we were on the Marne. In an earlier chapter I have told how, only three weeks later, when we had reached Vevey, Switzerland, the "great upheaval" came, and with what disturbing consequences. We did not leave Europe with the early rush. For a time we hesitated about leaving at all. But then uncertainties increased. With Italy planning war, the possibility of not being able to leave when we were ready was not comforting. So in October at last we got a military pass to take the car out of Switzerland, and on one of the last days of the

month set off up the Rhone Valley, down which Cæsar's armies once had marched, and drove to Brigue, and the next day crossed the Simplon Pass—up and up more than six thousand feet, where the snow was flying, and where there are no villages any more, but only a hospice, and here and there a wayside shelter. Then through a wild, savage-looking land—down and down, into Italy, arriving in the rain at Domodossola, glad, oh so glad, for safe shelter and food and beds!

I will not tell here of our month's wanderings in Italy. But one day our reliable car was loaded on a vessel for home, and a little later we were aboard the same ship, breasting such storms as made it seem impossible that only a little while before we had been in a sunny land, gliding smoothly over a solid surface that did not heave, and toss, and roar, day and night, without end; then by and by a day came when we were gliding once more over smooth, solid ground—this time in our own land, far from the quaint villages, the bright rivers, the ancient castles, the sunny slopes, and perfect roads of France.

Yet America is not without its glories. And though it has fewer quaint villages and no ancient castles, it has at least as fair scenery, as

fertile lands, and its roads are growing better and more numerous every day. Our wayside inns will improve, too, I am sure of it, until America, like France, may become another paradise. Narcissa and the Joy were patriotic enough to be gladdened at the sight of New England shores and hillsides, and, as Narcissa says:

"Well, if we did n't see America first, we 'll probably have plenty of time to see it now."

LETTER-BOXES IN FOREIGN LANDS

BY A. R. ROY

THE first letter-box ever used was established in Paris in 1560. It is true that a kind of letter-box was in use in Italy before that time; it was not used, however, by the postal service, but as a place for denunciations directed to the police.

The first letter-box in Germany was established in 1766, in Berlin. At first the boxes were simple; both for depositing letters and for removing them the cover was lifted. During the last century a great many different styles of boxes have been introduced, but the so-called Swedish system is now in universal use.

In Germany the letter-boxes are highly ornamental, and in many cases made especially to be in harmony with the architecture of the building to which they are fastened. They are painted blue, and show the coat of arms of the empire and that of the postal department, a post-horn with

tassels. The mail is removed by fastening a bag to the bottom of the box; the bag is slipped in and opens and closes automatically. The postman does not handle or even see the letters, and cannot get at them.

In London large letter-boxes are placed on the sidewalk, at nearly every street corner. They have different compartments for city and country mail, and this, as well as the height of the apertures, makes them rather inconvenient for any but grown people. While they are painted a brilliant red and therefore very conspicuous, they are by no means an embellishment to the city. The letters are taken out by opening a large door and literally shoveling the mail-matter into a bag.

The letter-box in the general post-office in England is a magnificent construction. The sign-board is made of brass, on which the directions are engraved in ink. Large slits provide for the country and colonial mails, and there is also a different compartment for newspapers and parcels.

The modern French letter-box has the shape of a pillar, profusely ornamented with the conventional lily. The whole box or stand is fashioned after a plant, and the top resembles a bud.

The body is surrounded by floral wreaths or festoons, and the base is formed by large leaves. The boxes are placed against buildings and have a very pretty effect.

In Brussels the government keeps pace with the needs of the people, and has attached postal boxes to the rear ends of cars in the city. This aids and hastens the delivery of letters and telegrams, as most of these cars pass the post-offices, where the boxes are emptied. This street-car letter-box, in fact, virtually takes the place of the "pneumatic tube" postal system, for which London and Berlin have become famous.

The Russian post-box is an old-fashioned, awkward-looking box. It looks something like a peasant hut. The roof is lifted up, and the letters are taken out from the top. The postman handles the letters as freely as the sorters themselves. In times past the governmental power in Russia was so strict that it is believed the post-office officials frequently opened letters suspected of being connected with plots against the State, and read them.

The Italian post-boxes are prettily constructed and grouped together in threes and fours. One box is used for the city, another for the country,

and by the side is a big automatic machine for stamps. A "penny in the slot" supplies the various kinds of stamps required.

The Amsterdam letter-pillar is of very artistic construction, which is both pleasing to the eye and practical. The royal arms are conspicuously and prettily embossed on the face of the box, and below them are two rosettes of conventional style. There are two letter-slits, one for the country and one for the city. The top is crowned with ornamental bowers. Right above the pillar is a board on which the times of delivery and collection are clearly written.

The Rumanian letter-boxes are all numbered in large letters so as to help the public to keep track of where they post their mail, and also the postman in his collection. It is a simple square box which is placed generally on the walls of large buildings in the main streets.

Throughout the Orient, where the national influences are many and various, each country has its own post-office. For instance, the British have their own, and the French and the Germans theirs. The stamps used by each of these post-offices are, of course, their own, there not being a universal system for all countries.

Right on the city gate in Tangier we find, in this town of an old civilization, the convenience of most modern time—a letter-box. Before the natives were used to them they were considered as wonderful machines into which a missive once being put was mysteriously conveyed to its destination, and they were generally feared. To-day the smallest boy uses them. The style of course varies with the power that puts it up.

Here we can notice with what expression of wonderment the native posts a letter. He is only certain the letter will go, but how, he does not know.

The German post-box is painted blue, and has only German directions written on it. The directions giving time of delivery and collection are written in many languages.

The final photograph shows a letter-box on a Moorish gateway in Tangier, Morocco. And here this convenience of modern days looks strange in its surroundings of Arabic fresco and characters. No attempt has been made to harmonize with the Moorish architecture. The letters are collected from an opening on the other side of the wall.

LOST RHEIMS

BY LOUISE EUGENIE PRICKITT

"RHEIMS, which has been on fire for a week, is now nothing but a great pile of smoking ruins," I read in the paper of the man who sat next to me in the subway. With a sick heart I read on: "There are no traces of streets and thoroughfares, which have disappeared from view under the accumulation of debris. Ancient buildings in the Place Royal and the market-place and the Musicians' House, which dates from the sixteenth century, have been reduced to dust and ashes." With a doubly sad heart I read it, for to me it is more than an old French city that lies in ruins, since with it goes the picturesque and historic background of my early youth. It is the tragic passing of my city of dreams, for there I dreamed away eight happy years of girlhood.

It is an enviable thing to live in an ancient city like Rheims till its history becomes a part of the texture of one's mind, till the background of that

history, hangs like a series of distinct pictures in one's thought, not to be effaced by anything that shall come afterward. The streets of Rheims as they then stood are photographed clearly on the retina of my mind's eye, and, dominating all, as it did at my first sight of it, is the majestic shape of the cathedral. I enter again, in imagination, those beautiful portals, and feel myself a tiny figure, and young in the midst of hoary antiquity. The organ music surges through the building, the choir-boys' voices soar above it. I see again the slanting fall of colored light across the wide gray floors, the soft blue smoke of the rising incense, the towering pillars, the vaulted roof, the dim vistas ending in the splendor of painted windows. Years and years of patient labor it took to rear this marvel. It represented the ideality of an age; it was, in fact, that ideality incarnate, left standing for all posterity to see and take inspiration from.

It was at sunset one December day that I first entered Rheims. It was to be my home for the next eight years, for my father had been appointed by the American Government to be consul there. How eagerly, I remember, we looked out of the train window as we approached the

city. Long before the town itself became distinct to our eyes, we could plainly see the cathedral, a superb silhouette, imposing and not to be forgotten. It was like one's first view of the ocean or the mountains or the desert.

That night we slept opposite the cathedral in the eighteenth-century Hôtel Lion d'Or. I recollect the thrill of excitement my sister and I felt as the big bus rattled into the courtyard of that quaint hostelry and agile valets in yellow-and-black striped waistcoats ran to open the door for us. We felt that we were at last to live a story-book life of adventure and romance.

The deep-toned bells of the cathedral awakened us at dawn, and in the pale light we rushed to the windows to look out on the sculptured façade of the wonderful building in order that we might feel again the strange charm that had so wrought upon us at our first sight of it. In the open square before us a valiant figure caught our attention, a figure of bronze that sat upon a spirited charger and held aloft a spear—Jeanne d'Arc, before the cathedral that had witnessed her brief hour of glory. The story we knew well, but shape and color it had never had before. The centuries before ours had been hardly more to

us than Arabian Nights' tales, yet here was the visible evidence of the mighty procession of people who had existed before our day. We could not take the shortest walk in the city without being reminded of the dim perspective of history stretching far back of our youth, for here it was written in tangible and enduring stone.

At the rear of the Hôtel Lion d'Or we could see the old hotel of the sign of the Maison Rouge, where the father and mother of Jeanne d'Arc were housed at the time of the crowning of the dauphin. We could walk over the cobblestone of the narrow rue de Tambour, which was once, so history says, one of the largest and most frequented of the streets of Rheims. We could look up at the Maison des Musiciens, so old a building that no one knows for what it was originally built. On its quaint façade how often we curiously examined the broken figures of the sculptured musicians, for this was the street down which the royal processions passed on their way to the coronation at the cathedral. The soldiers in the vanguard had struck and broken the statues with their spears to make way for the banners and pennants of the brilliant cavalcade. How full of color and splendor the street must have appeared

then! But that was all past, and the musicians, in our time, looked down only upon market-women trundling their wares through to the market-place beyond. The old building, nevertheless, still served to re-create, in the fancy of two wondering girls, those stately yesterdays.

In the rue Carnot how often we paused to glance up at a curious archway supporting two round towers! Old, very old it looked. And no wonder! for it dated from the Middle Ages. Under the arch we could catch a glimpse of the walls of the cathedral, gray as frost, and the prison, with beggars sitting in its grim shadow.

How the past centuries peered out at us from every corner, showing in quaint portals such as the one on the school of the Petit Lycée, with its bas-reliefs of a laughing child on one side and a crying one on the other, known to the *"bons enfants"* since the beginning of the school as *"Jean qui rit"* and *"Jean qui pleure."* Or that of the old house of the La Salle family, in the rue de l'Arbalète, with its life-size figures of Adam and Eve to guard the entrance.

When we walked down the rue Cérès we passed the house where Louis XIV's famous minister, Colbert, was born, and often pictured him coming

out of the wide doorway, the courtly, velvet-clad figure that the portrait of him in the art museum had made familiar to our minds: for many a trip we made to the Hôtel des Ville to see the paintings and the wonderful illuminated books in the library and the beautiful old building itself. We would often stop, I remember, to read the list of marriages posted in the vestibule, the Maries, the Yvonnes, and the Marguerites, the Jeans, the Marcels, and Pierres who were to "live happily ever afterward," or so we confidently believed. Several years later the elder sister came with her lover to read shyly her own, for the old and dignified Salle des Marriages was to be the background of her romance, too.

We had read Dumas, and Anne of Austria, as every one knows, figures largely in his tales. But that she was more real than d'Artagnan we had hardly conceived, until one day we stood before the seventeenth century house in the rue de l'Université which once had the honor of sheltering her. It belonged to Jean Mailefer, and he has left an account of the visit in quaintly spelled old French which we were fortunate enough to have a chance to read. He was very proud of the magnificence of his dwelling, and spread its lux-

ury before us as a peacock might spread his gorgeous tail for humbler birds to admire. It was fit for a queen he felt, and lo! she was coming. He describes exultantly the sound of the trumpets that signalized the consequential arrival of royalty. *"Tatera, tatera, tatera! Que d'honeurs qui vont tomber sur mes foibles espaulles!"* ["What honors to fall upon my poor shoulders!"] The pride of the seventeenth century—how laughably like it is to that of the twentieth. The queen as she entered, jestingly said, "The house is my own!" "Yes, *grande Princess,* you are right," responded its owner, quickly. At the same time the Marshal Duplessis asked of him, "Monsieur, are you the master of this house?" "Monsieur," replied the gallant gentleman of Rheims, bowing with a grand air, I make no doubt, "Monsieur, I was but a moment ago; but when the sun appears, the stars are eclipsed."

In the rue de la Grue we searched out the house where was born Tronson du Coudray, an eloquent lawyer of the Paris Parliament and the courageous defender of Marie Antoinette. With all our young enthusiasm we loved him as the champion

of the ill-fated queen. The Porte de Paris, the great iron gateway in Rheims, the guidebooks told us was a triumph of the smith's art, but it held our imaginations in thrall because it had been built in honor of the crowning of Louis XVI and Marie Antoinette. Somewhere we had found an account of the coronation, and read how joyously they had entered the city, and how in the cathedral, in the midst of the acclamations and applause, so loud and prolonged that they covered the sound of the bells and the noise of the cannon, the *"gracieuse Marie Antoinette"* had fainted and thus *"elle a perdu quelques instants du plus beau jour de sa vie"* ["she had lost some moments of the most beautiful day of her life"]. We loved to imagine her against the background of that rich interior of the cathedral, the light through its glowing windows touching with iridescence the tall gray pillars; the royal pennants and draperies, bright tones against the sombre hues of the marvelous tapestries; gold flashing here and there from tall candlesticks and brilliant uniforms; wonderful gems catching fire from the great arched windows that seemed, in the brightness of the sun, to be themselves made of rival jewels.

A splendid setting for "the most beautiful day of her life." "The height, the space, the gloom, the glory," how they typified that life!

The Porte de Paris, too, was eloquent of the fierce days of the Revolution. The people of Rheims tell how the mob one day came surging toward it, when the ringleaders proposed that they destroy the gilded crown upon its apex as the symbol of hated royalty. Then the mayor, a man of tactful resource, called to the most furious of the band and asked if he had a ten-sou piece at his service. The man readily passed it to him, whereupon the mayor at once gave it to a beggar standing near. "Take it," said he; "Monsieur will have nothing with a crown upon it." Every one laughed, and the crown on the gate was saved.

Under the wide arch of the Porte de Paris victorious Napoleon entered after the Prussian occupation of the city in 1814. It was already nightfall when the fierce battle was fought, and not until eleven o'clock was Napoleon able to enter the city. What an ovation he received from the rejoicing citizens—the Remois! It thrilled us to read it. All at once the great bells

of the cathedral thundered forth a welcome, while at the same time every window in the town was lighted and a great cry of *"Vive l'Empereur!"* rang from end to end of the city. The house in the rue de Vesle, where he slept that night, is an old acquaintance.

If the Porte de Paris seemed old to us and eloquent of the past, what was to be said of the gray old arch known as the Porte de Mars, that dated before Christ and "spoke aloud for future times to hear" of the triumphs of great Cæsar and of the Gallo-Roman days? and what of the market-place which was once, we were told, the Roman forum? Even in our time, though all traces of the forum were gone, the market-place was an ancient-looking square, edged as it was with quaint old buildings, among them, notably, an elaborately carved wooden house, one of the most curious specimens of fifteenth century art.

Near by was the old church of St. Jacques. Often we used to steal in to rest awhile in its rainbow-colored twilight. Not as imposing as the cathedral, but very lovely nevertheless, it was one of the relics of the twelfth century. The cathedral, St. Jacques, and the old abbey church of St.

Remi—they have formed for us the beautiful and impressive backgrounds of many a wedding and funeral and quaint religious service.

Many a time we have threaded the queer old streets of Rheims with their queer old names—the rue de la Clef [Street of the Key], the rue des Deux Anges [Street of the Two Angels], the rue des Trois Raisinets [Street of the Three Little Grapes]. The *Maison des Quatres Chats Gringnants* [House of the Four Grinning Cats], the *Auberge du Lapin Gras* [Tavern of the Fat Rabbit], curious old buildings of the Middle Ages—we passed them by in our youth, but we shall carry the memory of them into our old age. How tranquil the city used to seem to us then! Too quiet, sometimes; a drowsy old town, we said, sitting like venerable age sleeping in the sun. How little we dreamed what a cruel awakening was in store for it; that horror and terror were to stalk through all those peaceful streets and leave their dreadful scars behind!

WHERE DOROTHY VERNON DWELT

BY MINNA B. NOYES

AT Rowsley, England, the quaint old Peacock Inn, with its vine-covered walls, casement windows, and rare old gardens, is the picture of peace and comfort, and it is also a perfect type of the hostelries of bygone days.

If the guest can tear himself away from its ease and plenty, its stately gardens, and its soothing atmosphere, the surrounding country affords many delightful walks and attractions both historical and romantic.

Following the pretty little river Wye, one soon comes to Haddon Hall, one of the best specimens of medieval domestic architecture now in existence, although it has been added to at various periods from the eleventh to the sixteenth centuries.

It was given by William the Conqueror to one of his sons, William Peveril (Scott's "Peveril of the Peak"), and is now the property of the Duke

of Rutland, a descendant of the beautiful Dorothy Vernon, whose romantic elopement with John Manners has been celebrated in drama, song, and story, and lends an especial interest to the old castle.

The Vernons lived at Haddon Hall from 1195 to 1567, and, among the many beautiful women of their line, the most beautiful is said to have been the self-willed Dorothy. Her youthful love-dream was thwarted by her equally obstinate father, some say because of family feuds, others say on account of difference in religion.

Whatever the cause, parental opposition was so strong that one night, when a grand ball was in progress in the famous ball-room of Haddon Hall, the heiress stole away through the door of the anteroom and fled, in all her festive array, along "Dorothy's Walk" (a long terrace lined with stately yews), down the long flight of steps to the lower terrace, and over the little bridge to her waiting lover. He carried her away on his fleet steed to a hasty morning wedding, carefully placing many miles between the irate father and the lovely bride.

Dorothy's father, Sir George Vernon, "The King of the Peak," allowed his wrath to cool in

time, and the happy couple returned and made their home at the Hall.

John Manners was a younger son of the Earl of Rutland, and father of the first Duke of Rutland, whose cradle is now exhibited in the state bedroom of Haddon Hall.

The great ball-room from which Miss Dorothy fled is over one hundred feet long, eighteen feet wide, and fifteen feet high. On the south side, toward the garden, are three very large, recessed windows, and on the north side is a huge fireplace with ancient fire-dogs. At the east end of the room is a glass case containing a bust of Grace, Lady Manners, wife of Sir George Manners. This is said to have been made from a cast taken after death. Certainly the lady was far from beautiful if one judges from this representation of her charms!

The interior of the family chapel is in a semi-ruined state. On the right there is a stoup for holy water, about four hundred years old, and just beyond it are the servants' seats. In the chancel are two large, high, family pews, one on either side, the master and his sons occupying one, and the lady and her daughters the other.

The stained-glass window in the chapel was of

great beauty, but, early in the nineteenth century, the greater part of it was mysteriously stolen in the night, and its place has been filled with fragments of colored glass taken from other windows.

In the kitchen may still be seen the immense fireplace, the large, hollowed-out block, evidently used for a chopping-tray, a salting-trough, and a few other pieces of culinary apparatus.

In the banqueting-hall is the minstrels' gallery, the front of which is carved and paneled, and decorated with stags' antlers, and there is also a gallery along one side, probably of later construction. The lord and his guests sat at one end of the hall on a raised platform, while the retainers sat at tables in the body of the hall. The high table is a remarkable specimen of its kind, and one of the most interesting relics of feudal times.

At the north end of the hall, just inside the entrance, is a kind of handcuff, fastened to the wall and so arranged as to hold a man's wrist up at arm's-length while liquor was poured down his sleeve—the punishment meted out to every guest who did not drink all that the laws of hospitality forced upon him!

Over the banqueting-hall is the drawing-room, the walls still hung with ancient tapestries.

There is a great deal of beautiful old tapestry in Haddon Hall, and it all seems to be woven or worked in small pieces, even the shades of coloring being done separately and then sewed together.

Another room shown to visitors is the state bedroom, with old oil-paintings, and Goblin tapestry designed in panels on the borders of which are medallions with subjects from Æsop's fables. Queen Elizabeth is said to have once slept in this room, and in a large window-recess is a dressing-table with a mirror called "Queen Elizabeth's looking-glass." The poor queen's vanity must have received a shock when she saw herself reflected there, or else the glass has become defective with age! In this room there is also the primitive cradle said to be that of the first Duke of Rutland.

The state bed is large and imposing, draped with faded green silk velvet lined with white satin, dating from the reign of Henry VI. The last person to occupy this bed was George IV, when he was Prince Regent.

There are some smaller and less interesting rooms to which the visitor may have access, all, by the small windows and the rude workmanship

of doors and fastenings, showing great antiquity.

A winding staircase of uneven stone steps leads to the Peveril Tower, the highest part of the Hall, and from this tower there is a beautiful view of the valley of the Wye and the hills and valleys around.

Haddon Hall is not used as a residence by its owner, the Duke of Rutland, but it is kept in reasonable repair, and is visited yearly by hundreds of "trippers" from all parts of the British Isles and by tourists from all countries.

To be appreciated fully it should be inspected leisurely, and not "done" in the few minutes allowed some of the "personally conducted" visitors. One lovely summer day we saw two large wagonettes filled with tourists drive up to the Hall, and the procession, headed by a guide, walked through the rooms and back to the waiting vehicles in less than half an hour! We learned that these people were Americans, who had landed at Liverpool that morning, and after hastily viewing this fine old mansion, they were to be taken to Chatsworth House, the Duke of Devonshire's country-seat a few miles away, while later in the day they were due in London for additional sight-seeing!

It is small wonder if they had little appreciation of the beauties of venerable pile or modern mansion, and but the vaguest memories of them after their return home!

Haddon Hall will repay one for frequent and extended visits, as new points of interest will repeatedly reward the unhurried visitor, and many a pleasant hour may be spent on the terraces, looking out over the charming landscape and dreaming of bygone days when the Hall was a stage for the drama of life, with all its elements of love and hate, of comedy and tragedy, of peace and war.

FOREIGN FIRE-BRIGADES

BY CHARLES T. HILL

ONE summer, while in Switzerland, I asked a prominent merchant of Lausanne, when his town had had its last serious fire. "Not in three years," he replied. I was moved to ask this question because I had found the fire apparatus in padlocked barns, or stations, with the keys in the hands of the police, who attended to the fire-fighting; and this seemed, as compared to the remarkably quick methods employed in America, a somewhat dangerous form of fire protection. Lausanne is a town of about fifty thousand population, and I wondered how many American cities of a like size could boast of only one serious fire in three years. Not many, I imagine.

In Lucerne, a smaller city of Switzerland, of about forty thousand population, the conditions were practically the same, with the exception that each stable containing the fire apparatus had a notice posted on the door stating that the keys

could be found in the neighboring hotels and drug-shops, and the citizens were expected to take out the engines in the event of a fire, while the firemen (volunteers) came on "call," the alarm being sounded on all the church bells. Lucerne is a well-known tourist center, heavily populated during the summer months, and has many large shops filled with very inflammable material, and a great many very old buildings; and yet this place had had only two fires of any size within two years!

While I was attending the morning drill of the Central Fire Station at Dresden, in Saxony, the captain in command told me that the city had, on an average, about six alarms of fire a week. I casually remarked that we had twenty-five *a day* in New York. He looked at me with wonderment and doubt, and when I repeated that we actually had between twenty and thirty alarms of fire a day in the Borough of Manhattan alone, he threw up his hands and exclaimed, "Thank heaven, it is not as bad as that here, or our beautiful city would be destroyed!"

And so we find, thanks to superior building construction, less hurry and rush in business methods, and a wholesome regard on the part of

the citizens for certain rigid laws covering the use of explosives and materials of all kinds which usually cause fire, the lot of the foreign firefighter is not as strenuous as that of his brother fireman on this side of the water. Because of the excellent character of the buildings abroad fires burn slowly, and rarely extend beyond the room or floor in which they start. Here, on the other hand, the conditions are entirely different. Our fires are larger, more destructive, and more frequent, compelling us to support not only the most effective, but most expensive, fire-departments in the world; and yet, in spite of all this, our annual fire losses are from ten to twenty times more than those of any country in Europe.

Better building laws and the universal adoption of fire-prevention ordinances, are going to change all this for us, in time, but as yet our annual fire loss stuns the average European by its enormous total.

In London, the fire-department comes under the supervision of the city authorities, the London County Council looking after the administration of the "Metropolitan Fire-Brigade," as it is called; and this brigade, in management and routine work, is not unlike many large American fire-

departments, though the apparatus used is radically different. A naval officer has always been chief of the London fire-brigade, and the firemen are usually recruited from the marine service, a time-honored custom giving preference to men who have been at least five years at sea. It is argued that the work of a fireman is of a nature more readily performed by a sailor, who is not only accustomed to danger and exposure of all kinds, but is trained to climbing and working in perilous positions. These new men, after passing a severe physical examination before a medical board, are put through three months' careful schooling at fire headquarters, where they are not only taught how to handle every tool and implement used in the brigade, but become skilled in life-saving work.

The fire stations in London are much larger than the engine-houses found in American cities, and some of the newer buildings in appearance are not unlike some of our better-class apartment-houses. Indeed, this is practically what they are —a kind of apartment-house or barracks for the men and their families, as well as a station for the apparatus and the horses; and here the firemen live, occupying little apartments of from three to

five rooms, according to their rank and position. They are, therefore, in the houses and on duty at all times, with the exception of one day's leave of absence in every fifteen. Enough firemen are found in each London fire station to make up three of our fire-companies, but only one third of these men are in service or on "call-duty" at a time, the rest being held in reserve to answer any other alarms which might come in, or to reinforce the first detachment leaving the house should their "call" prove to be a bad fire. And the men of each squad or detachment on "call-duty" are supposed to be fully dressed when an alarm comes in, and have only to adjust their helmets, which hang in long rows on the walls of the apparatus floor, before jumping on the engines; and no exception is made to this rule, even with the men on the last or "night tour"—from 9 P. M. until 7 A. M. This accounts for the pictures we sometimes see, showing the English firemen seated along the sides of their engines, in military fashion, fully uniformed.

In some of the stations, the London fire-brigade still clings to the rather old-fashioned custom of keeping the horses standing in harness, in stables at the rear, to be led out to the apparatus by hand

in event of a "call"; and this makes their "turn-out" in answer to an alarm appear to us to be a peculiarly slow one, accustomed as we are to the remarkably quick methods employed in our fire-departments. But several of the newer houses, built within the last few years, are supplied with many ingenious American time-saving devices—sliding-poles, swinging-harness, etc.,—while the horses are kept in box-stalls on the apparatus floor, in convenient running distance of the engines, all of which has considerably reduced the time consumed in turning out to an alarm.

The English fire-engine is a small affair, much smaller than our steam fire-engines, having about one half the pumping capacity of the American engines; and nearly every one in London is a combined engine and hose-wagon,—the hose being carried in a box-like compartment on each side of the machine, just back of the driver's seat. This "hose-box" serves as a convenient place for the firemen to sit while riding to the fire. Quite a number of automobile fire-engines are in service in the London brigade, big, businesslike-looking machines, about as large as some of our motor-engines, and capable of great speed while answering an alarm. As a contrast to this up-to-date

equipment, a number of "manuals," or hand-engines, are in use, which ought to have been sent to the scrap-heap years ago.

In the way of ladder-trucks they are very well supplied in London, for, in addition to several "horse ladder-escapes," as they are called (a fairly long extension ladder carried on a horse-drawn truck, and which can be detached from this truck and pushed close to a building), they have a great many hand-pushed "ladder-escapes" (a shorter extension ladder of the same type and pushed by hand) scattered throughout the city, housed in substations in the principal squares and more important thoroughfares, and intended for emergency use only until the regular apparatus arrives. They have also a few "aërial" ladder-trucks carrying a very long extension ladder which can be raised, by means of an ingenious little engine using carbonic-acid gas for its motive power, to a height of eighty feet or more. But aside from use as a kind of water-tower at large fires, these aërial ladders are rarely extended to their full length, for the houses are nearly all of a uniform height, not over five or six floors, and the ordinary extension ladder is suf-

ficiently long to reach the upper parts of these buildings.

The fire-alarm boxes, or "alarm-points," as they are known, are found at convenient corners throughout London, and consist of an iron post about as high as an ordinary hitching-post, with a little round metal box at the top containing a glass door. You break the glass in this door, pull the little handle or knob inside, and thus send in a "fire-call" to four or five of the nearest fire stations. In all American cities when a fire-alarm box is "pulled" the alarm is transmitted direct to a central-bureau, usually at fire head-quarters, and is then retransmitted, either automatically or by hand, to the engine-houses; but in London—and in every other European city—each fire station has its own alarm-bureau, in charge of an officer and several operators, these stations receiving only the alarms from the boxes in the immediate neighborhood. All the stations, however, are connected with each other, and with a central-bureau or headquarters, by both telegraph and telephone.

London has something like 4000 fires annually, and spends about $1,250,000 every year to sup-

port her fire-brigade. It is estimated that the city of New York (comprising the Boroughs of Manhattan, Bronx, Brooklyn, Queens, and Richmond, and with about the same population as London proper) has 12,500 fires annually, and spends something over $7,500,000 to support her fire-department.

In Paris, the fire-brigade comes under the jurisdiction of the Department of War, and it is part of the French army that attends to the fire-fighting in this famous city. Two battalions of infantry, known as the "Regiment des Sapeurs Pompiers," look after this important work, and although this brigade is recruited, drilled, and commanded by various regimental officers, from a colonel down to a lieutenant, and belongs to the war department, it comes under the direct control of the Prefect of Police (Chief of Police), who is the actual head of the Paris fire-brigade.

These stations, or, as they are well named, *casernes* (barracks), are big structures filled with many firemen, on an average about 140 men in every building; and each station is equipped with numerous pieces of fire apparatus, and all are provided with a large inner court, or drill-yard, in which the men go through military evolutions

twice daily, and where the new men, who are coming into the brigade continually, are taught how to handle all the various appliances used in fire-fighting. Here also the men are put through a series of calisthenic exercises two or three times a week, which, if introduced into the American fire-departments, would drive every man out of the service, so vigorous are these "stunts." In acrobatic fashion the Paris firemen are compelled to climb ropes, jump hurdles, balance themselves in mid-air on frail wooden supports, perform on horizontal bars, execute a kind of "setting-up" drill en masse, and last, but not least, climb up one of the walls of the courtyard, holding on by their finger-tips and the edges of their boots to little crevices in the wall, and falling, if they should slip, into a pile of sand at the bottom. In addition to all this they have the regulation hose, ladder, and life-saving drills of all other fire-departments.

The Paris fire stations are thoroughly up to date in equipment, for we find them fitted with sliding-poles, swinging-harness, horses kept in box-stalls within a pole's-length of the harness, automatic door-openers, and virtually every quick-hitching device for which American fire-

departments are noted. And in addition to steam fire-engines, aërial ladder-trucks, and hose-wagons—the latter very much of the same type as those used in this country—there are a great many automobile fire-engines in service, and quite a few of the *casernes,* or stations, are equipped entirely with motor-driven apparatus. There are also several electric fire-engines in use, practical-looking affairs, carrying a large square tank containing four hundred gallons of water, which is given the necessary pressure to reach the top of any of the buildings by means of an ingenious set of electric pumps placed at the back of the tank. As it only requires a few men to handle this engine, and the mere throwing over of a lever to get it under way, it is used at many small fires, and is sometimes the first and only piece of apparatus to leave a station in answer to an alarm, for there is no regular "assignment" of engines and ladder-trucks sent to the alarm-boxes in Paris, as is the case in our cities, and the operation of their fire-alarm system differs from that of any other city in the world.

The fire-alarm boxes are large, ornate-looking affairs, placed on the corners of the principal boulevards and streets and in the public squares,

and directions on the outside of these boxes inform you that, in addition to breaking the glass door (which automatically transmits the number of the box to the nearest fire station), you must also use the telephone inside and give a description of the fire, its character, size, and location (street number if possible); and it is necessary to go through all this proceeding before the sending of an alarm is considered complete. This alarm is received in the alarm- or "watch-room," of the nearest fire station. There an operator picks up a telephone receiver and listens for your description of the fire, and he decides, according to the message received, the number of pieces and character of the apparatus which is to answer the alarm. For example, if it is only a small fire—a window-curtain or a chimney—he simply orders out one piece of apparatus, an electric engine, such as was described above, or, perhaps, a *fourgon*—a sort of hose-wagon carrying a squad of men, short ladders, hose, and tools and appliances of all kinds. If, on the other hand, the call comes from a factory or a tenement district, where rescue work may be expected, he then sends two wagon-loads of men and the *grande-echelle* (aërial ladder-truck), and if the fire appears dan-

gerous, from the telephoned description, another ladder-truck and a steam fire-engine, or a motor-engine; but the engines are rarely used in Paris, as the water-pressure throughout the city is very fine, sufficient to reach the top of the average building; and the steamers are only sent out as a precaution, and are seldom put to work.

The fire-hydrants in Paris, as in every other city in Europe, are of the "flush" or sunken character, instead of the post-hydrants used in our cities, and are found in depressed basins in the sidewalk, near the curb, protected with iron covers; and the location of these hydrants is carefully indicated by metal signs on the walls of the buildings near by, which not only point out the exact position of each hydrant, but tell the amount of water pressure to be found at that outlet—a feature that our firemen would welcome.

All gas or electricity entering any building in Paris comes partially under the control of the fire-brigade, and the firemen carry keys on every piece of apparatus which enables them to open a small metal plate, always found at a certain spot in the sidewalks, and thus cut off either the gas or electric service from the building immediately on their arrival at a fire.

But in addition to this very sensible supervision of the gas and electric service by the fire-brigade, the Paris firemen have the added protection in their work of a very effective type of "smoke-helmet," a device which is also used largely by the fire-brigades of Berlin, Dresden, Vienna, Milan, and several other cities in Europe. This is a metal helmet fastening securely around the neck of the fireman wearing it, and connected by means of an endless hose-pipe, with a portable air-pump kept out in the street and in charge of a fellow-fireman, who controls the amount of fresh air reaching the head-piece. It is claimed that, protected with this device, a fireman can enter a heavily smoke-charged building and work for quite a while in comparative comfort. We carry a smoke-helmet on nearly all the fire apparatus in this country, somewhat similar to the European appliance, but without the independent air-pump attachment. It is rarely used, however, as our firemen claim that it is unreliable, and hampers rather than aids them in their work. But among the foreign firemen the smoke-helmet is considered a valuable protection, and is used frequently.

Among other interesting appliances which the

Paris firemen have found of great assistance to them in their work there may be mentioned a portable electric search-light, carried like an ordinary hand-lantern, fitted with a powerful storage battery, and producing a very intense, and, of course, a thoroughly safe light. It is used largely for night work or in dark, smoky cellars. Also a large hand-carried electric fan, which can be operated by hydraulic power as well as electricity, using the pressure from the street hydrants for this purpose; and this fan has been found useful for clearing rooms or hallways of heavy smoke or poisonous vapors.

Paris, with a population of 2,750,000 souls, has about 1800 fires every year, and spends, annually, $575,000 to support her fire-brigade, an organization of some eighteen hundred men which can be turned into the field as two battalions of infantry at short notice. Therefore this expenditure might be said to provide two kinds of protection —military as well as civic. But splendid building laws and equally excellent laws covering the use and storage of explosives and inflammable materials of all kinds, have made the work of her firemen a comparatively easy one, and the large fire is of such rare occurrence in this famous city

that the "French Pompier," using methods which appear very amusing to American visitors, is enabled to make a most satisfactory yearly showing to his Minister of War.

In Berlin, and in virtually every other German city, the fire-brigade is managed upon almost the same general plan as the brigades found in London and Paris, and the apparatus, in nearly every instance of German manufacture, is very similar to that used by the English and French firemen. The men are all husky fellows, well drilled and military in appearance, and the majority are ex-soldiers, as preference is given to men who have seen army service in recruiting new members for the brigade. The fire stations are usually very large, sometimes occupying as much space as would be covered by an entire block in an American city, and nearly all of the stations are built in rectangular form, with a spacious inner court, or drill-yard, in the middle. On one side of this yard will be found the engines, ladder-trucks, etc., housed in individual compartments, or barns, and on the other the stables for the horses; while the upper part of the building on both sides is occupied as dormitories or lounging-rooms for the men, and quarters for the officers. Every station

has its own fire alarm-bureau, or "watch-room," looked after by an officer and two or three operators. The "turnout" in answer to an alarm in a German fire station is very similar to an artillery drill, and is performed in the same stiff, almost automatic, manner, for the brigades are conducted on strict military lines.

The men in these stations are divided into little squads, each commanded by a petty officer, or *Oberfeuerwehrmann,* as he is called, and each squad placed in charge of a separate piece of apparatus. When an alarm strikes in the "watch-room," a bell is started ringing in the quarters of the men, which sends them clattering down the long flight of stairs in their heavy leather boots, while they hastily adjust coats, belts, and helmets. Reaching the yard, each squad breaks up into two detachments, two men, the driver and his aide, running to the stable for the horses, the rest for their respestive pieces of apparatus. The doors of the apparatus barns are thrown open, and the engines, ladder-trucks, and wagons are found standing there with poles detached, the latter lying on the floor directly under each machine. At a command given by the petty officer the pole is lifted up, shoved back in its socket, and the

king-pin dropped into place. The men then jump back to the wheels at each side, and at another command the apparatus is pushed out into the yard. By this time, the horses, fully harnessed, have been brought over from the stables by the other two men, and are backed into position beside the pole, the traces and pole-straps are locked, and at another command from the petty officer the driver and the rest of the men jump into their places on top of the apparatus, and salute the *Brandmeister,* or commanding officer, of the station. This official, leisurely getting into a six-seated wagon with his associate officers, then gives the order to "go," and, headed by the wagon containing the chief and his aides, the procession dashes out through the arched driveway into the main thoroughfare, thus completing an exhibition which, when witnessed by Americans, usually provokes a laugh. And when I add that upon the receipt of an alarm in the "watch-room" the location of the box is written down on a large yellow paper blank, bearing the word "Feuer!" at its top; that this blank is folded carefully and sent down to the apparatus floor by means of a small hand-lift, or elevator; that it is taken therefrom by the commanding officer and read deliber-

ately before he steps into his *feuer-wagon,* it will be seen that the Germans believe in attending to everything, even a call as urgent as an alarm of fire, in a thoroughly official and dignified manner. But in Berlin much of this military detail and pomp has been done away with, and, aided by swinging-harness and many other quick-hitching devices, the firemen make a more rapid exit in answer to a call. And once in the streets, they cover the ground at great speed, for the engines are light and the horses splendid, and every one, even the Kaiser himself, gives a clear field to the *Feuerwehr.*

It costs the Berliners, with not quite the population of Paris, $485,000 a year to maintain their excellent fire-brigade, excellent because the fire loss in this royal city is hardly more than a fifth of that in New York. But much of this remarkably low loss in the German capital is due to the careful work of the brigade in preventing any damage to property other than that caused by the actual extinguishment of the fire. As an example of the conscientious way in which the Berlin firemen attend to their labors, it may be explained that, at fires in the residential districts, where it is found possible to confine the fire to some one

room, tarpaulins, or waterproof covers, are spread over the stairs and through the halls before the hose is brought into the house, and no windows are broken unless absolutely necessary. When our buildings are all as excellent as theirs, and our citizens are all working as harmoniously together to prevent fire, we may find it safe to adopt some of the deliberate and careful methods of the German firemen.

DUTCH CHEESES

BY H. M. SMITH

AMONG the daintiest and best of the numerous kinds of foreign and domestic cheeses that may be bought in nearly every American city and town, are the small round cheeses with red or yellow coats which come to our markets from Holland. The ancient town of Edam, on the shore of the Zuyder Zee, has given its name to this product, and almost everywhere in America we ask for Edam cheese when we want this particular kind; but while Edam produces Edam cheese, this sleepy little town long ago ceased to hold a high place in the cheese world, and neighboring towns now monopolize the trade in this article, which holds a leading place in the farm products of Holland.

The most extensive and celebrated of the cheese-markets is that of Alkmaar, which has the commercial advantage of being located on a railroad as well as on the North Holland Canal.

Every visitor to the Netherlands should arrange to spend at least one day at Alkmaar, easily reached from Amsterdam or Haarlem.

In Dutch history, Alkmaar is celebrated for its successful defense when besieged by the Spaniards in 1573, but in modern times it has been noted for its cheese trade, which is now its principal attraction.

The market is held every Friday; but in order to observe all of its features, a visitor should go to Alkmaar the day before, and see the preliminary preparations. The market-place is a large stone-paved space in the open air, with business houses on three sides, a canal on the fourth side, and a weigh-house at one end. During Thursday the dairymen from the surrounding country arrive with their families and their cheeses, coming in carts, wagons, and canal-boats; and by the afternoon of that day, there is a great bustle, which continues far into the evening.

Throughout the night bands of young peasants, both men and women, parade the streets of Alkmaar, singing and skylarking; and cheese-carts continue to arrive and clatter along the stony streets, so that little sleep is possible for the residents and visitors.

An essential part of the cheese-market is the official weigh-house, which was built more than three centuries ago, out of an already existing church. Its shapely clock-tower has moving figures of horsemen in a tourney, and a beautiful set of chimes, one of whose airs is the well-known wedding march from Wagner's "Lohengrin." In the main room on the ground floor are four huge balances which, before the opening of the market, are carefully adjusted with much ceremony by an official in silk hat and frock-coat.

When the cheeses are on their way to market from the farms, they are handled with great care, so as to prevent bruising or crushing; and whether in wagons or boats, they are arranged in layers separated by light boards. As the wagons and boats arrive at the market-place, spaces are assigned to them, and the unloading begins, the cheeses being arranged in regular square or oblong piles on pieces of canvas, with narrow walks between. The size of the piles depends on the number of cheeses the individual farmers have to dispose of, but usually the piles are eight to ten cheeses wide, thirty to fifty long, and always two layers deep. At the market attended by the

writer, the largest pile contained nine hundred cheeses.

The unloading of the wagons and boats is one of the most interesting sight of the market. Standing in a wagon or boat, one man takes a cheese in each hand and throws them to another man, sitting or kneeling on the ground, who arranges the cheeses in regular piles. Long practice has made the farmers very skilful in tossing and catching; the cheeses go through the air in pairs as though tied together, and may be thrown as far as thirty feet. During very active times, the yellow balls are flying thickly in all directions.

As soon as a farmer has arranged his stock of cheeses, he covers the piles with canvas, and often also with rush mats, grass, or straw, in order to protect them from sun or rain, and to prevent the drying of the surface. Before the sale, the venders liberally anoint the cheeses with oil to make them look fresh and inviting.

Shortly before ten o'clock a large number of aged porters meet in a room of the weigh-house, and soon emerge dressed in scrupulously clean white trousers and shirts, with black slippers and straw hats. The hats are of blue, green, yellow, red, or other bright colors, with ribbons of the

same shade hanging down behind; and the men wearing the same colors work together in pairs.

Promptly as the clock in the weigh-house tower strikes the hour of ten, the cheese-market formally opens. The covers are removed from the piles of cheeses, and the whole market-place literally bursts into bloom. Sales are preceded by much bargaining, and the cheeses are felt, smelled, and tasted. When a price is agreed upon for a particular lot, the buyer and the seller clasp hands; and then, the half-hour having struck, the porters begin their labors, which consist in carrying to the weigh-house loads of cheeses on sled-like trays suspended from their shoulders by long straps, receiving a check from the master of the scales, and returning their certified fares to the owners, who thus have a basis for determining the aggregate weight and value of each lot sold.

So rapidly do the selling and weighing proceed that by eleven o'clock the market is virtually over. Then the cheeses are removed to the warehouses of the purchasing merchants, the farmers depart in their boats and wagons, and when the grand noonday burst of the chimes comes the Alkmaar cheese-market exists only as a memory.

A GEOGRAPHY CITY "COME ALIVE"

BY LINDAMIRA HARBESON

DURING the Great War, when the armies of Europe were trying to beat their way into Constantinople, this city, which once had been to us merely a black dot in our geographies, suddenly became very real. We used to know it as a point somewhere in the lower right-hand corner of the map, where Europe is separated from Asia by several annoying little bodies of water that were so hard for us to remember. But when I tell you that I ate a bag of peanuts while going in a ferry-boat to Constantinople from Scutari, the little Asiatic village just opposite, you will understand the width of the Bosporus better, perhaps, than your geography can tell you.

The photograph presents a good general view of the city as seen from the Galata side; and shows clearly Santa Sophia and the Golden Horn which divides in two parts this ancient and famous metropolis of the Ottoman Empire. From the

roof of the American College buildings, which are on a hill in Scutari, we can look directly across toward the mouth of the Golden Horn.

Stamboul is the old part of the city, where many different peoples have dwelt—first Greeks, then Romans, now Turks, and you can still see by a bit of a house or an old wall how these people lived. Galata is where English, French, Italians, and Germans carry on their business in Turkey, and where the big boats unload their cargoes. Between Galata and Stamboul is one of the most famous and most crowded bridges in the world. Pera is where most of the Europeans live.

Constantinople is indeed like the fairy city in the Arabian Nights to which the poor brothers are whisked away on a carpet—a dream city on the edge of the water—a city of lavender-blue domes, and minarets that seem to reach to the sky. We are just aware of the little houses straggling up the hill or dipping their feet in the water. The maze of houses and the mosques are veiled in a light blue haze, just as if the city, like the women, had to wear the *yachmak,* or head-covering. Off beyond is the glistening Sea of Marmora, and near by, the dazzling blue

waters of the Bosporus dotted with little black boats. The city stretches on farther up the shore, and just beyond are the wooded hills. At the foot of one of them, on the very edge of the water, is the long low white marble palace of the sultan—Dolmah Bagtché it is called, which means "walled-in garden."

Everybody who is young must love Constantinople. It is so full of color and soft musical sounds that one is sure something unexpected and wonderful will happen any moment. Nowhere in the world, perhaps, can be seen so many different types of people as on Galata Bridge. Let us pay ten paras—a little over one cent—and go on the bridge; we shall see and hear more than a dollar's worth. There go modern Turkish gentlemen dressed like our fathers, but wearing fezzes instead of hats. A fez is made of soft red felt and has no brim; from the top hangs a black silk tassel. Here come old-fashioned Turkish gentlemen with bent shoulders and flowing beards. They wear soft padded overcoats of many colors, and each is sure to have on a ring set with a beautiful stone that he keeps turned toward the inside of his hand. There are some priests with white scarfs round their fezzes; here

are others with green ones, because they have been to Mecca, where every pious Turk wants to go before he dies. There are whirling dervishes in brown overcoats, and tall brown hats shaped like chicken croquettes. Have you ever heard of dervishes? They are priests who perform a peculiar ceremony in their religious houses. They take off their brown overcoats and dance in green or white costumes that have full pleated skirts. They spin round and round on their tip-toes, accompanied by strange music, while the chiefs of the order sit cross-legged on the floor and watch them.

Then there may pass a Tartar pilgrim all in white from the interior of Asiatic Turkey, or a Persian in gray with a Persian-lamb fez, or a fierce Kurd. The last is a soldier, and wears a brown hood with a long end knotted round his head. Since the Balkan War, when many Kurds were in Constantinople on their way to the army, the little Turkish girls have worn the same sort of hood of soft colors and fabrics. On the bridge, too, may be seen the shrouded Turkish ladies, who move silently along like black ghosts. They wear the *tcharchaf*—the modern Turkish dress which includes a veil over the face; old-

View of Constantinople from the Galata side

fashioned women of the poorer class still wear the soft white yachmak that covers the head but not the face. And then, too, there are the *hamals*—wild peasants from the interior—who do the fetching and carrying. They wear little caps and bright sashes, and have on their backs a kind of saddle on which they put anything from a bag of flour to a piano. They walk faster than the rest and sing *"Dustur, dustur,"* which means "Get out of the road." If we are very lucky, we shall see a string of camels with their noses in the air, and on their humps lovely faded blue and red saddle-bags. They are usually led by a donkey, and with them is a camel-driver of most fetching appearance. The camels are so big and shaggy and out of place that we pinch ourselves to see if we are really awake.

Now let us go wandering about the old city. The narrow, silent streets are paved with cobble-stones, and lined with houses that have never been painted, but have been colored by the sun, the rain, and the wind. Some of them are overgrown with wistaria vines that cross from one side of the street to the other and frame the big shut front door.

One fine day I lifted the knocker on one of

these doors when calling on a Turkish family I knew. The door was opened silently, and I found myself in a tiny garden full of flowers. No matter how small his house, the Turk always has a bit of a garden. If he is rich, he has it on a hill from which he can see the Bosporus. The garden I visited opened from a bricked hall. We went up the stairs and were greeted by the ladies of the family more courteously and gracefully than I ever have been greeted anywhere else. I wish I could describe for you the Turkish salutation. It is as hard to acquire as a foreign accent. As she bows, a lady makes a downward sweep with her arm, then raises her hand, palm upward, to her heart and lips. This means, "I am at your service; my heart is yours; the words that I speak are in your favor."

I was taken into a room all windows. The Turk loves windows as he loves gardens—windows that look over the water. All around the room were bright-colored *sedias,*—low hard couches,—which are, however, very comfortable to sit or lie upon. In the middle of the room on a brass tray was a big brazier containing live coals, on which the daughter of the house soon made Turkish coffee. Besides gardens and win-

dows, the Turk loves coffee—his own peculiar kind that you must taste some day along with the other goodies. This is the way it was made for me: Into a brass coffee-maker, which looks like a pitcher with a long handle, were put one sugar lump and one coffee-cupful of water. When this had boiled, one teaspoonful of finely powdered Turkish coffee, taken from a china egg on the tray, was put into the water. This mixture was allowed to come to a boil three times and then poured, the pitcher being held a foot from the cup so that there would be foam on the coffee. I tried to drink it in the really Turkish way, holding the saucer with the cup to my lips. If you try it, you will see how *hard* it is to do this *easily!*

A little sister showed us her drawing-book, in which she had begun at the back and worked toward the front. The Turkish children recite their lessons all together in the old-fashioned schools, and if you could hear them, you would think that you had gone into *Wonderland* with *Alice* where "things would n't come straight." The little girls go to school in groups, and with them is always an old servant who carries all their books on what looks for all the world like a

small clothes-tree. The boys go and come in two long lines, attended by their teacher. They carry their own books and wear long trousers and fezzes exactly like those of their fathers. Some of the tiny girls carry their own little tables and drawing-boards. In the gipsy village in Scutari the children learn their lessons by songs in the street. They stand in a circle with a big girl in the middle, and they grow noisier and noisier the more interested they become. These little girls wear *shelvars,* which look like little trousers gathered in at the ankle. I tried to take a picture of a little girl in an orange-colored pair and of a boy in a wrapper and fez, but they were frightened and ran away crying.

Now I must tell you about the Turkish shops—the really Turkish ones. Most of them are about the size of a spider's parlor and have no front wall, so you see the wares can be temptingly displayed to the passer-by. You see in one of our pictures a shop where all kinds of blankets and scarfs are sold. The scarfs are especially useful: if you are a man, you can wind one around your fez or your waist; if you are a lady, you can wear it indoors as a shawl, sash, or scarf; or, if it is the right kind, a little girl can wear it to school on

her head. You don't know which one to choose when they are tossed down in front of you—a riotous mingling of reds, browns, oranges, golds, and yellows. Another fascinating shop is a bead-shop. Most of them are together on the bead street. There you may see displayed all kinds of strings of beads—long and short, large and small beads, red, yellow, and blue, of amber, meer-schaum, and olive-wood. The Turkish gentle-men carry the short strings, and, when they chat, they play with the beads, unconsciously, but al-ways in the same way. They move them for-ward with the thumb and first finger, two at a time, one from each side of the string. When all have been moved, they turn the string about and move the beads in the opposite direction.

Then there is the rug-shop. The Turkish rug-merchant offers you tea or coffee and cigarettes, as he hopes you will spend much money. And while you drink, he throws down before you rugs, rugs, rugs, soft, rich, alluring, from Baluchistan, Kurdistan, Persia.

But you, I am sure, would prefer a candy-shop. Even if you have tasted our Turkish paste, you have only a remote idea of how succulent a goody the real *loukoumi* is. Then there is *halva,* full

of nuts and all sorts of other good things which you can never guess. It is sticky, and, when you bite it, it nearly pulls your teeth out. Then there are *courabiés* and *smits,* both of which are cakes which you must buy on a ferry-boat to get the real flavor. A man comes in, carrying a basket in one hand and waving a sheet of paper in the other. The *courabiés* are stuck to this paper and you pull them off yourself. The *smits* are on a stick which protrudes from the top of the basket. For you must know that a *smit* is shaped like a doughnut. (Only the hole has grown larger without affecting the size of the eatable part. This part is not sweet and is covered with aniseed.)

It would make your mouth water if I should tell you of all the delectable dishes you might have in the cafés all over the city. The Turk loves to eat, he loves to sit, and he loves to stare at his garden, at his beloved Bosporus, or at space. They never say in Turkey, "Where do you live?" but always, "Where do you sit?" In spring and autumn the hills about Constantinople are dotted with spots of color. They are the Turkish men and women sitting on the grass. And what a wonderful view they look at! There they sit for

hours and hours, usually silent, occasionally chatting, sometimes grunting *"Uh, uh, uh, uh,"* in descending tones.

The chief other thing a Turk does in times of peace is to pray. From the gallery of a minaret the muezzin calls him to prayer five times a day. Do you know what a minaret is? It is the tower of the Turkish church, or mosque. Mosques built by royalty may have two minarets, others only one. These minarets are slender, very tall, with a gracefully pointed top that draws the eye right up to the sky. There is a Turkish proverb that says, "Never steal a minaret unless you have a place to hide it in." Two thirds of the way up, there is a carved gallery, very light and beautiful, where the priest stands and chants down through the air the call to prayer, which in English prose is this: "There is no God but Allah; Mohammed is His Prophet; let us go and pray; let us go save our souls; God is great; there is no god but God." A pious Turk either goes to the mosque, or prays wherever he may happen to be. I once saw a soldier praying on a ferry-boat. Inside the mosques the cooing of many pigeons adds to the rhythmic murmur of the prayers. There are pigeons inside and outside of all the mosques; one, of which

a picture is here shown, is called the Pigeon Mosque.

The most famous mosque of all is Santa Sophia, once a Christian church as you can tell by its name, built by the Byzantine Greeks about 300 A. D. It is yellow, weathered by time, is very big and on top of a hill. Inside, it is a dark golden-brown, and the pigeons flying around under the roof seem to be far, far above you. The rugs on the floor are all on a slant because the church was built originally with the altar toward the east; later the Moslems made it face toward Mecca, southeast of Constantinople. No Turk ever walks on those rugs with his shoes on,—he leaves them at the door or carries them in his hand,—and before he comes in to pray, he washes his feet and hands at the fountain outside, no matter how cold the water or the weather. Fountains are everywhere in Constantinople, made of white marble and exquisitely carved.

Constantinople has been famous in history ever since the legend that Leander died in swimming the Hellespont, the old name of the Dardanelles. Nations have quarreled over it, because it is one of the most wonderfully situated cities in the world, and Constantine the Great made it the cap-

ital of his huge empire. You will study all that in Roman history if you have not studied it already, and will read also of its capture by the Turks, under Mohammed the Conqueror, nearly five hundred years ago.

The history of the Ottoman Empire makes the most exciting fairy tale seem colorless. Perhaps you do not know that, when Henry the Eighth of England and Francis the First of France were forming a mutual-admiration society of their two kingdoms on the Field of the Cloth of Gold, there was another king, as great as either of them, in the southeast of Europe, carving great pieces out of other countries for his empire. This sultan, Suleiman the Magnificent, was a great lawgiver. His reign was the height of Turkey's power. Soon after its close the rest of Europe became interested in Turkey, especially Russia and England. Recently, German influence has been stronger than any other at the Turkish court. That is why Turkey fought on the side of Germany, and why England and France determined to storm the forts and brave the mines in the water entrances to Constantinople and so open up a way to the Mediterranean for their great ally, Russia.

THE GIANT AND THE GENIE

BY GEORGE FREDERIC STRATTON

FAR up on the slopes of Mt. Rainier, in Washington, is a waterfall which, according to the legend, was inhabited by a giant of enormous strength—Menuhkesen by name. From out of the East there came a genie possessed of such courage and audacity that when he was warned against the terrible powers of Menuhkesen he laughed lustily and said that he would call forth the surly giant and make him do his bidding. Summoning his afrits, he gave them orders, and they immediately surrounded the falls, some of them peering through strange instruments and making mysterious signs with their hands, while others measured distances and drove stakes, bearing weird symbols, into the river banks.

Then the genie stood on the bank overlooking the falls and shouted: "Ho, afrits! Dig me here a deep hole!" And immediately they went to work with great activity. When they had dug

down a hundred feet, the genie commanded them to tunnel under the falls. "We will unearth this giant and prove his strength!" he cried defiantly.

So they dug a tunnel until they reached a great mass of rock underneath the brink of the falls; and here they hewed out a huge cavern, and carried into it strange machines and many wheels, fastening them all strongly. And they hung wires from those machines, stringing them a long distance through dense woods and across ghostly ravines to where many men lived and worked. When all was ready the genie grasped a great lever and shouted, "Ho, Menuhkesen! Come forth now, and get busy!"

Then he pressed down the lever, and instantly the spirit sprang out of the falls, and leaping upon a wire, rushed along it with such swiftness that no one could see him. The next moment he was many miles away, performing marvelous feats of strength—pushing great street-cars at incredible speed, turning the wheels in mills and factories, and lighting stores and dwellings. In fact, he did whatever the genie ordered him to do, without an instant's delay or any demur.

All over these big, resourceful United States, Menuhkesen is found, but the modern captains of

industry call him "Electricity." The genii also are with us, graduates of technical colleges or of engineering departments of great factories, who, donning khaki clothes and high-laced leather boots, camp out in the wild mountain fastnesses, or on the weird deserts, or in the dense forests, and invoke the giants they meet everywhere in this wonderful country.

But it is the western mountain regions which chiefly hold the romance, the tragedy, and the gigantic power of the mythical old giant. All up and down the Rockies and the Sierras, and in the network of stupendous mountains which cross the five or six hundred miles between, are mountain torrents tearing down from summits perhaps two or three thousand feet high to the valleys below. Some of them are very small in appearance, but possessed of tremendous force.

Let us trace one of these and discover the giant. We hike, or ride a sure-footed horse, six miles up one of the somber gashes in the mountains, called cañons, arriving at the origin of a stream we have seen growing smaller as we ascended. We find a little spring gushing from beneath a huge boulder and trickling down through the ferns and brush. Soon it is joined

by other little streams on the right or left. Presently, as we stumble along down the rocky trail, we see on one side a wide, deep gulch, with walls of sandstone or granite rising almost perpendicularly on either side. And that gulch has snow lying in it, perhaps forty feet deep—the drifts of last winter or slides from the slopes above it.

The snow may then have been sixty or a hundred feet deep, but now, in midsummer, it is dwindling fast, and its water doubles or triples the size of our little stream. Suddenly we see that the wild, rocky, torrent bed has been cleaned out, and that the banks are lined up with rock. The genie has been giving orders.

A few rods farther that torrent bed gives place to a timber flume; and the next moment that flume, instead of keeping on the sharply sloping floor of the cañon, rises on trestles, holding an almost level position. The trestle increases in height as the ground beneath them slopes downward, and cross a deep gulch, still holding the little torrent running between the wooden walls of the flume.

From our trail beneath we see the flume now skirting round the waist of some stupendous mountain, then crossing other gulches, and soon

appearing on the summit of a peak, eight hundred feet above where we are standing. Below, at the foot of that peak, is a small, plain, stone building, and, wriggling down from the summit, is, apparently, a huge black snake, poking its nose into the basement of that house.

The house holds the generators for turning the force of that torrent into electricity. The snake is the penstock—a great black steel pipe, twisting and turning to avoid the huge boulders in its path as it conducts that water from the summit into the turbines in the house.

The turbine is an enclosed water-wheel in which every particle of force in the rushing water is used to turn a great steel shaft. On the other end of that shaft is geared the generator—the wonderful machine with wire-wound arms which makes the electric current. At this particular power-house the little torrent which reaches the summit in a flume thirty inches wide and two feet deep turns out 800 horse-power.

It is the force, not the size, of the stream which gives that power, for water has a pressure of about fifty pounds per square inch for every hundred feet of the height of its source. So this water has a pressure at the turbine of four hun-

dred pounds per square inch—a far greater pressure than that in the cylinders of a great Mogul mountain locomotive.

The little stream, freed from the turbines, whirls furiously round a small basin and rollicks off on a wild, headlong dash through an open sluiceway for a short distance. Then another flume arrests it; and as we hike along down the trail, that flume rises above us, straddling gulches on high trestles, and at two points tunneling through a great mountain.

We get back to the mouth of the cañon, and there see, on the level we have then reached, another power-house, larger than the first. Behind it is another huge, bare mountain of rock; and coming down that, another gigantic black snake, also poking its head into the power-house. This snake—or penstock—is 1600 feet long, and the same stream which developed 800 horse-power at the upper house is now—with the addition of a little water picked up on the way—reeling off 2600 horse-power at this house.

This imprisoned, raging torrent is now released, and flows in a subdued, gentle stream down a natural stream-bed. It is less than eight feet wide and not deep enough to wet our horses'

knees as we ford across. But we gaze upon it with the awe and amazement it deserves when we remember that, but a few moments before, it has sent its great power over eleven miles of wire to a small town, is operating several factories, and will, at night, light all the streets and the houses.

And that is only half its work! Before us is a great stretch of orchards and fields, vividly green, although they have not had one drop of water from the heavens for three or four months. All their health and vigor and wonderful productivity is due to that little stream, which irrigates over three thousand acres of the land.

Within twenty miles of where this is written, at the foot of the great Wasatch Mountains, in Utah, are five such cañons with power-houses—two of them with two houses in each cañon. All over this mountain country, from the middle of Utah to the Canadian line, are hundreds of such mountain torrents, only a small proportion of which are yet harnessed for work.

Some of them are very much larger than the one we have visited. Come with me to one of these larger houses.

It is in a cañon of awful sublimity, so deep and so nearly unapproachable that the construction

teams had to haul over eight miles of zigzag trail to make the descent of less than half a mile to the torrent. We scramble down over the rocks and brush; and although the roar of the water reaches us for ten or fifteen minutes before we see it, we are by no means prepared for the astounding scene when it at last comes into view.

Out from the depths of the great ugly building belch forth four gleaming, horizontal columns of water, big as barrels, with a force, speed, and roar as though the discharge were from giant cannon. Straight across the tail-race they gleam and quiver for a hundred feet, impinging upon a solid ledge of granite, in which they have worn huge caverns. The spray dashes up the face of the ledge for sixty or seventy feet. Up and down the stream, swirling and writhing in a thousand rushing, crowding whirlpools, the water, just freed from its maddening confinement, is seeking to make good its escape. But it is jammed back into the upper race, and for fifty yards you will see it hanging, ledge upon ledge, fighting, snarling, surging, and struggling for its chance to slip beneath those terrific outlet volleys and gain the lower stream and liberty and peace.

The mighty Niagara has no such background

of wild beauty, nor does it ever convey such an instant impression of water force. Once I saw a big two-inch plank dropped into one of those furious water columns. It seemed scarcely to touch the water, but flew, faster than the eye could follow, over to the granite ledge and was instantly smashed into ten thousand splinters, and I knew that even before the plank had reached the ledge, the mighty power which hurled it, transmuted into electricity, had already reached, and was operating, street-cars in a city seventy miles away.

Come into the power-house. Look at the four gigantic generators, whirling and humming like leviathan June-bugs—see the wicked, sputtering little blue sparks from the commutators. From the windows at the back of the building we look up a very sharp slope, 1500 feet high, and see the penstocks—twenty-four-inch steel tubes, black, ungainly, and, at twilight, very uncanny. They follow in curves the profile of the rough ground, bringing the furious rush of water from the summit down to the turbines in the lower basement, turning out 26,000 horse-power.

The force of the water in these penstocks is terrific. Tests of a four-inch jet from one of

them have been made. A rifle-bullet glances off as from chilled steel; a jet from it, no bigger than a penholder, will drill a hole in sheet steel in a few moments. At the reservoir on the summit a fly-line may be played in the water—at the foot of the penstock no mortal could thrust a bayonet one inch into it.

A United States trooper once essayed, on a wager, to cut a two-inch jet with his sword; a shattered weapon and a broken wrist resulted.

In the harnessing and curbing of these mountain streams the utmost engineering skill and ingenuity has been called into play. Often the power-house has to be situated miles back in such inaccessible wilds that the greatest difficulty has been encountered in carrying machinery and supplies to the spot. At one point in the Sierras men and material were transported across two yawning chasms by means of wire cables, under which ran a freight-carrier.

The Feather River in California makes a big horseshoe bend twenty-five miles above Oroville, coming within three miles of itself again. An enormous mountain intervenes, but the engineers tunneled that and diverted the water into that

tunnel. In the lower end of that black, rushing, underground torrent are placed the great turbines and generators.

The most striking instance of the results of securing a big headway for a small stream is shown in San Juan County, Colorado. The Animus River in its course between Silverton and Durango, a distance of twenty miles, has a gradual fall of about fifteen hundred feet. Although called a river, it is but a mountain stream, tumbling over little falls and through rock-strewn gullies, at no point showing more power than would be sufficient to drive a very small grist-mill. But the genius of science has so cunningly diverted it and concentrated its energy as to develop at last 40,000 horse-power.

A dam was built a few miles below Silverton, and the water turned into a flume which is only six by eight feet in size. It will be seen that it must be a very small stream whose waters can be run through such a restricted channel. Across fearful cañons and around great mountains, through tunnels and cuttings that flume carries the water for sixteen miles to the edge of a great cliff near Durango. The cliff is over one thousand feet high, and the pipe runs over the edge

and makes a perpendicular drop into the power-house below.

From the four-foot steel pipe, nozzles five-eighths of an inch in diameter conduct the water into the turbines, whirling them at a speed of four thousand revolutions per minute. The speed of the jets of water shooting from those nozzles is 25,000 feet, or over four miles per minute.

Note how the wizards of industry further concentrate and control the giant they have evoked. That forty-thousand horse-power making that mighty plunge over the cliff is met by magical machines and switched into a wire but little larger than a lead-pencil. Forty feet of that unyielding steel flume which held the power is a load for a freight car; forty feet of the wire which carries the power is but a small load for a six-year-old boy.

At one moment the power is in that roaring, headlong, terrific plunge—the next, it is miles away, invisible, noiseless, and mysterious, illuminating great arc-lamps, running heavy cars, and —to come from great to small—whirling dainty fans or cooking an egg.

There are other marvelous power-plants situ-

ated on rivers where, although the force is far less than that of the mountain torrents, the volume of water is far greater. Idaho shows the most remarkable of the developments of such water-power, and the astounding ingenuity and determination of the genii are shown as much as in the mountains. The Bear River, which runs through Idaho and Utah, carries a very large flow at an exceedingly rapid rate—for a river. At one point in Idaho no less than six great power-houses have been installed on that river, producing a total of nearly 200,000 horse-power. In order to secure good headway, and the force which this gives, two enormous pipe-lines have been built to take the water from upper reaches of the river, and, while holding that pipe almost to a level, run it across country to a lower reach, where a power-house is built, thus increasing the headway from nothing to two or three hundred feet.

One of these lines is of eleven-foot pipe, nearly five miles long; the other is a sixteen-foot pipe, half a mile long. Almost all of the current produced at these plants is transmitted by cable to Salt Lake City, 135 miles away.

It has been said by expert engineers of elec-

trical development that it will be but a short time before the intermountain region will use no coal, that all smoke-stacks and chimneys will be abolished and electricity furnish all the power, heat, and light not only to cities and towns, but to farming communities.

We are on the way. There are some districts now where villages, towns, and farms all use electricity for power and for lighting and cooking. This is notably so in Rupert, Idaho, the home of the famous electric high school, described in "St. Nicholas" in September, 1913.

All through that town the lighting and cooking in even the humblest homes is by electricity. The few small factories use no coal or steam-power. In the mountain region over one hundred cities, towns, and rural communities have electric wires in their houses. All are lighted by them and very many have thrown out coal ranges and cook by electricity.

The region is one of mines everywhere, some of them the largest in the world; and nearly all of them have discarded their gigantic steam-, hoisting-, and pumping-engines for electric motors. There is, it is asserted, more than enough water-power running to waste to do every particle of

work now done by steam, horses, and men and women in the region, from impelling the enormous sixteen-wheeled mountain Moguls to rocking the babies' cradles by motor.

Across the northern part of Idaho and Montana, over a wicked country of mountains and cañons, the western division of the Chicago, Milwaukee, and St. Paul Railroad runs all its trains by electricity, as you have read in your last month's number of "St. Nicholas," while farther south, across Utah and Colorado, the Denver and Rio Grande Railroad Company completed its plans three years ago for the electrification of its road to Denver; but the scheme of the kaiser to lick the world in ninety days failing, material became too costly to warrant the change from steam to electricity.

But the power is ready or could quickly be made ready. Every year the two great companies which have been formed by the consolidation of numerous small owners of power-plants, are building dams and reservoirs and flumes, getting ready for the not far distant day when steam-engines will have to be looked for in the Museum of Antiques and Curiosities in Salt Lake City.

OUT IN THE BIG-GAME COUNTRY

BY CLARENCE H. ROWE

IN the big-game country! Is there a healthy, red-blooded American boy who does not feel a thrill of excitement at the thought? In spite of our civilization, there is, in many, a lingering thrill in the very thought of the chase, handed down through a long line of ancestry dating back to the time when the chase meant food rather than sport.

The stage setting for big game is perfect. In the sheep country of Wyoming or the deer country of Colorado it is at an altitude of from nine to thirteen thousand feet above sea-level, where the air is clear and crisp with the tang of winter, the huge stretches of wild open country lying like a picture at one's feet. Could anything be more beautiful and invigorating?

A reconnoitering-point will sometimes reveal a view of almost a hundred miles. Across a gulch of some twenty miles the distant buttresses of red

sandstone rock are painted with slashes of golden copper, the somber pines straggling almost to the top, interwoven with the delicate tracery of the quaking asps, now beautifully colored by the frosts. At our feet nestles a "park" (as the valleys are called), and possibly a silvery thread of water winds in and out. Nature paints with a full, rich palette in this glorious Western country! The skies rival those of Italy in depth, and, while possibly a bit more crude in raw color, are, for this very reason, more in keeping with the broad, vigorous landscape.

In the big-game country everything is big—not only the game, but the mountains, the valleys, and the people. Small statures bred in these surroundings expand and broaden—it is only natural.

All this seems far removed from the subject of elk, Rocky Mountain sheep, and bear, but to every true sportsman these constitute fully one half of the game.

The Rocky Mountain sheep are by far the most majestic and dignified of the animals of this locality. They are fond of the rock-studded mountain-sides, and often a huge sentinel ram, silhouetted against the sky, will reveal the feeding-place

of a group of ewes and lambs. The task now, if one is fortunate enough to be to the windward of him, is, after tethering your horse, to work slowly and carefully to within range, usually from two to four hundred yards. Distances out there are most deceptive, owing to the clear, rarefied air, and an object that seems to be a few hundred yards distant may prove to be almost a mile.

Elk come next, and the lucky hungry hunter who has bagged his "six-point" buck would need more space than at my command to tell how he did it.

Antelope surpass both sheep and elk for timidity. They are extremely wary and possibly the most difficult of all game to get within range. They are found in the lower and open country.

Underlying all the hopes and expectations in the hunter's mind is the thought of *bear,* and of course first of these stands the grizzly. These are getting scarcer every year, and most of us, if we *must* get a bear, will have to be content with a yearling or a two-year-old black bear. There is no special country for them. As a rule, in the summer and fall they come down in the low parks to feast on the berries. Toward winter they are more likely to be found higher up the slopes.

After the first snow an occasional raid on the highest and loneliest ranches is looked upon by Bruin as "the thing." At one of the ranches nestling at the foot of Mount Evans in Colorado, miles away from any other habitation, a rancher put a cow-bell on each of his horses when turned loose, thinking to frighten the bears. Bruin had a penchant for the frisky little colts gamboling about the mountain-side and thought it quite neighborly to chase the whole herd, mares and all, helter-skelter down to the ranch. It was quite common for the rancher to be aroused at night by the clanging of bells and the clatter of hoofs as the horses scampered into the corral.

Sheep, elk, and bear all go above the timber-line. The height of this line varies in different sections; ten thousand to ten thousand five hundred feet is an average.

A good wiry horse that is n 't gun-shy and will allow packing the game back to camp is a necessity, for often a bag is made too far from camp for a regular pack-animal to bring in.

Above all, in the confusion of getting together the regular camp outfit, don't forget to slip a paper of trout flies and line into the duffle bag. The little streams winding through the parks will

reward an hour's casting with half a dozen or so delicious mountain trout running from six to ten inches in length. They are small, but make up in quality and flavor. When the hunt is over, we take our parting look at the grim old mountains, so silent and peaceful, and wend our way back to civilization, happy and humble in the overpowering glory and majesty of what the natives call "God's own country."

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